

**FACTORS RELATED TO THE USE OF LANGUAGE
LEARNING STRATEGIES BY THAI PUBLIC
UNIVERSITY FRESHMEN**

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**A Thesis Submitted in Partial Fulfillment of the Requirements for the
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ตัวแปรที่มีความสัมพันธ์กับการใช้กลวิธีการเรียนภาษาอังกฤษของ
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Language learning strategies have been defined specifically for this investigation as conscious behaviours or thought processes used in performing learning actions whether observable (behaviours or techniques) or unobservable (thoughts or mental processes), that Thai public university freshmen themselves reported generating and making use of to enhance their English learning in the classroom and in a free learning situation.

The investigation is designed to explore an overall strategy use of Thai public university freshmen, and examine the relationships as well as patterns of variations in frequency of students' reported language learning strategy use with reference to their self-rated proficiency levels (high, moderate, and low), gender (male and female), language learning experiences (more than 8 years of English learning and 8 years of English learning or less), fields of study (sciences and non-science oriented), and types of academic programs (international and regular programs). The participants of the study were 1,134 students selected through the multi-stage sampling method, of 8 selected limited-admission public universities in Thailand, in Academic Year 2004. There were two main phases of the data collection: Phase 1) gaining the interview data to generate the questionnaire; and Phase 2) generating the questionnaire after analyzing the interview data from Phase 1.

A researcher-generated questionnaire was used as the main instrument for the data collection. The Alpha Coefficient (α) or Cronbach Alpha was employed to check the internal consistency of the strategy questionnaire. The reliability estimate based on a 1,134-student sample is .95 which is high when compared with the acceptable reliability coefficients of .70. The simple descriptive statistics were used to describe level of frequency of strategy use, while an Analysis of Variance (ANOVA), the Chi-square tests and the Factor Analysis were used as the main statistical methods in data analysis to seek the relationship between the frequency of strategy use and the five investigated variables.

The findings show that, on the whole, these students reported medium frequency of strategy use in the four main categories of language learning strategies, namely 1) 'Strategies used for Preparing Oneself for Classroom Lessons'; 2) 'Strategies for Understanding the Lessons while Studying in Class'; 3) 'Strategies for Improving One's Language Skills'; and 4) 'Strategies for Expanding One's General Knowledge of English'. The results of data analysis demonstrate that the frequency of students' overall reported use of strategies varied significantly in terms of fields of study, types of academic programs, previous language learning experiences, and language proficiency levels. Four extracted factors were also found to be strongly related to these five variables. Regarding gender of the students, this variable was found to be slightly related to students' choices of strategy use.

School of English

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นิตสาร ประคองชาติ : ตัวแปรที่มีความสัมพันธ์กับการใช้กลวิธีการเรียนภาษาอังกฤษของนักศึกษาไทยชั้นปีที่ 1 ในมหาวิทยาลัยของรัฐ (FACTORS RELATED TO THE USE OF LANGUAGE LEARNING STRATEGIES BY THAI PUBLIC UNIVERSITY FRESHMEN) อาจารย์ที่ปรึกษา : ผู้ช่วยศาสตราจารย์ ดร. ชาญณรงค์ อินทรประเสริฐ, 315 หน้า

กลวิธีการเรียนในการวิจัยครั้งนี้ใช้เฉพาะกับพฤติกรรม หรือกระบวนการคิดที่มีจิตสำนึก ซึ่งใช้ในการเรียนที่สังเกตเห็นได้ หรือกระบวนการคิดที่สังเกตเห็นไม่ได้ของนักศึกษามหาวิทยาลัยรัฐบาลชั้นปีที่ 1 ในประเทศไทย ซึ่งรายงานการใช้กลวิธีการเรียนเพื่อส่งเสริมการเรียนภาษาอังกฤษในห้องเรียนและนอกห้องเรียน

การวิจัยครั้งนี้มีวัตถุประสงค์เพื่อสำรวจการใช้กลวิธีการเรียนโดยรวมของนักศึกษามหาวิทยาลัยรัฐบาลชั้นปีที่ 1 ในประเทศไทย และศึกษาความสัมพันธ์ระหว่างความถี่ของการใช้กลวิธีการเรียนกับตัวแปร 5 ตัวได้แก่ ระดับความสามารถด้านภาษาอังกฤษที่ได้จากการประเมินตนเอง (ระดับสูง กลาง ต่ำ) เพศ (ชายและหญิง) ประสบการณ์การเรียนภาษาอังกฤษ (มากกว่า 8 ปี และ 8 ปีหรือน้อยกว่า) สาขาวิชาที่กำลังศึกษาอยู่ (สาขาวิทยาศาสตร์ หรือสาขาอื่นที่ไม่ใช่วิทยาศาสตร์) และหลักสูตรการเรียน(หลักสูตรนานาชาติและหลักสูตรปกติ) กลุ่มตัวอย่างในการวิจัยครั้งนี้ประกอบด้วยนักศึกษาจำนวน 1,134 คน ได้จากการสุ่มตัวอย่างแบบหลายชั้นจากมหาวิทยาลัยในประเทศไทย 8 แห่ง ที่รับนักศึกษาเข้าเรียนโดยจำกัดจำนวน ในปีการศึกษา 2547 การเก็บข้อมูลแบ่งออกเป็น 2 ช่วง ได้แก่ช่วงที่ 1) การเก็บข้อมูลจากการสัมภาษณ์ และช่วงที่ 2) สร้างแบบสอบถามโดยการวิเคราะห์ข้อมูลจากการสัมภาษณ์ในช่วงที่หนึ่ง

แบบสอบถามที่สร้างโดยผู้วิจัย ใช้เป็นเครื่องมือในการเก็บรวบรวมข้อมูลโดยตรวจสอบความเที่ยงตรงภายในด้วยค่าสัมประสิทธิ์อัลฟ่า หรือครอนบรัค ซึ่งมีค่าความเชื่อมั่น ของแบบสอบถามจากกลุ่มตัวอย่างของนักศึกษาทั้งหมด 1,134 คน ที่ระดับ .95 ซึ่งถือว่าเป็นความเชื่อมั่นในระดับสูงเมื่อเทียบกับความเชื่อมั่นที่อยู่ในเกณฑ์เป็นที่ยอมรับที่ระดับ .70 สถิติเชิงบรรยายถูกนำมาใช้วิเคราะห์ระดับความถี่ของกลวิธีการเรียน การวิเคราะห์ความแปรปรวน (ANOVA) การทดสอบไค-สแควร์ และการวิเคราะห์ปัจจัย (Factor Analysis) เป็นวิธีการวิเคราะห์ทางสถิติเพื่อหาความสัมพันธ์ระหว่างการใช้กลวิธีการเรียน กับตัวแปรทั้ง 5 ตัว

ผลการวิจัยครั้งนี้พบว่า โดยภาพรวมแล้วนักศึกษารายงานความถี่การใช้กลวิธีการเรียนในระดับปานกลางใน 4 กลวิธีหลัก ได้แก่ 1) กลวิธีการเตรียมตัวก่อนเข้าชั้นเรียน 2) กลวิธีการทำความเข้าใจบทเรียนในขณะที่อยู่ในชั้นเรียน 3) กลวิธีในการปรับปรุงทักษะภาษาของตนเอง และ 4) กลวิธีการเพิ่มพูนความรู้ทั่วไปด้านภาษาอังกฤษ ผลจากการวิเคราะห์ข้อมูลแสดงให้เห็นว่า

ความถี่ของการใช้กลวิธีการเรียนมีความสัมพันธ์อย่างมีนัยสำคัญกับสาขาวิชา หลักสูตรการเรียน
ประสบการณ์การเรียนภาษาอังกฤษ และระดับความสามารถด้านภาษาอังกฤษ พบว่าปัจจัยที่ถูก
สกัดออกมา 4 ปัจจัย มีความสัมพันธ์อย่างมากกับตัวแปรทั้ง 5 ส่วนตัวแปรในด้านเพศของ
นักศึกษาพบว่ามีความสัมพันธ์กับการเลือกใช้กลวิธีการเรียนเพียงเล็กน้อย

สาขาวิชาภาษาอังกฤษ

ลายมือชื่อนักศึกษา

ปีการศึกษา 2550

ลายมือชื่ออาจารย์ที่ปรึกษา _____

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CHAPTER 1

BACKGROUND TO THE STUDY

1.1 Introduction and Purpose of the Chapter

This chapter is an introduction to the present investigation primarily focusing on both a background of literature in the field of language learning strategies and a context for the research work. It covers the terms used in the context of the present study. Besides, background information regarding English as a Foreign Language (EFL) education in Thailand is described in light of formal system of education and English language teaching and learning in the Thai context. The chapter concludes by noting research objectives and the expected outcomes of the study.

Since the 1970s, in the field of language teaching and learning, there has been a great emphasis on how language learners' characteristics relate to their language performance. The individualized focus has resulted in an increasing number of studies conducted to investigate a relationship between learner differences and language learning strategies that learners use in acquiring a target language. Through an extensive review of available literature, it has been suggested that there are a large number of factors considerably affecting learners' choice of language learning strategy use. Examples of the various factors are gender (e.g. Politzer 1983, Ehrman and Oxford 1989, Oxford and Ehrman 1995, Wharton 2000, Ji 2001, and Intaraprasert 2000, 2003), motivation (e.g. Ehrman and Oxford 1989, Oxford and Nyikos 1989, and Wharton 2000), fields of study/majors of study (e.g. Oxford and Nyikos 1989, Torut

1994, Intaraprasert 2003, and Peacock and Ho 2003), learners' beliefs (e.g. Horwitz 1988, Yang 1999, and Intaraprasert 2004a), career interests (e.g. Ehrman and Oxford 1989), different teaching and learning conditions/atmospheres (e.g. Wharton 2000), and previous language learning experiences (e.g. Wharton 2000). Although the findings of the studies give some insights into the complex relationship between language learning strategies and learner performance, Cohen (1998), Ellis (1994), and Stern (1983) call for more studies dealing with a relationship between factors (e.g., social factors, learners' individual characteristics, attitudes, motivation, teachers' instructional processes, and an educational context, among many others) and how these factors contribute to language learners' decisions to employ their language learning strategies in acquiring the target language.

A review of available literature, it also reveals how little is known about EFL learners' use of language learning strategies and the underlying attributes of factors relating to the learning strategy use. This is because a great amount of research has limited to be carried out with native speakers of English learning a foreign language, or non-native speakers of English learning English as a second language (ESL), as stated in Intaraprasert (2000, 2002, 2003, and 2004b), and Wharton (2000). In the context of EFL education in Thailand, a few research works have been carried out to investigate language learning strategy use of Thai EFL students, and a small amount of research has been conducted with students studying at the tertiary level (Intaraprasert, 2000, 2002, 2003, and 2004b). Most of the educational researchers whose interests lie in language learning strategies have been heavily focusing on language learning strategies of successful and unsuccessful language learners in

striving for academic success (e.g. Dhanarattigannon 1990, Lappayawichit 1998, Ounwattana 2000, Kaotsombut 2003).

Meanwhile, a few researchers such as Torut (1994) and Intaraprasert (2000, 2002, 2003, and 2004a) have shown some attempts to look into the relationship between learners' use of language learning strategies and factors relating to such learning strategies. Examples of factors apparently examined in the studies are gender, learners' beliefs, previous language learning experiences, fields of study, and language learning outcomes. Even though the studies help in understanding how Thai university students use their language learning strategies in acquiring the target language, that understanding comes from evidence of the specific groups of students, mostly science-oriented students (e.g. Intaraprasert, 2000, 2002, 2003, and 2004b). Investigating the relationship between those factors and frequency of learners' use of language learning strategies is the focal point of these studies. No empirical research has been designed to investigate language learning strategy use of Thai university students, specifically public university freshmen, with reference to their learning conditions, i.e. fields of study (science-oriented and non-science-oriented), types of academic programs (regular and international), or language learning experiences (number of English learning years). To fill this gap, the present investigation aims to identify and compare types of language learning strategies used by Thai public university freshmen studying in various fields of study, types of academic programs, and language learning experiences.

Due to the concept of language learning as explained by Stern (1983) and Brown (1991), language learning does not include only the learning of skills or the acquisition of knowledge, but also the learning to learn and the learning to think along

with the modification of attitudes, the acquisition of interests, social values, or social rules, and changes in personality. Language learning strategies, therefore, do not operate by themselves. Rather, they are directly tied to other factors related to language learners such as learners' attitudes, interests, social contexts, and personality, among many others. Based on the concept of language learning, given that primary means of an interwoven relationship of learners' language learning strategies and learner-related factors, a need exists to take those factors into consideration in order to help interpret the concept of language learners (Stern, 1983, and Ellis, 1994). An analysis of those factors can help not only to clarify what general factors relate to learners' ability and desire to learn and the way they choose to go about learning, but also to indicate how individuals are likely to respond to emotional, motivation, and interpersonal demands of language learning. Thus, it is necessary for the present investigation to reveal the complex relationship between learner-related factors and how these factors have an impact on Thai public university students' decisions to employ what language learning strategies in acquiring the target language.

This investigation has been designed to conduct under the 'research-then-theory' (termed by Frankfort-Nachmias and Nachmias, 1996: 52), or so called 'theory-after-research' (termed by Punch, 1998: 16); rather than the 'theory-then-research' (Frankfort-Nachmias and Nachmias, 1996: 52) or 'theory-first-research' (Punch, 1998: 16). According to Frankfort-Nachmias and Nachmias (1996), and Punch (1998), the 'research-then-theory' or 'theory-after research' does not start with theory used to frame the scope of the study, but it ends up with a theory explained from the data the researcher collects. The present investigation does not aim to test a

theory about learners' use of language learning strategies. Rather, the investigation is designed to examine language learning strategy use of Thai public university students by describing and interpreting the relationship between variables including gender of students, previous language learning experiences, fields of study, types of academic programs, frequency of language learning strategy use, and levels of language proficiency.

In summary, as aforementioned, there are a number of variables considered and regarded as relevant to learners' use of language learning strategies (Ellis 1994, Oxford and Nyikos 1989, Oxford 1990, Cohen 1998). The variables that are widely examined by the educational researchers and practitioners as relating to L2 (Second Language) success are gender, aptitude, motivation, personality, language anxiety, learning styles, and learners' beliefs. Even though it is evident that many learner-related variables mentioned above are directly related to language learners' use of language learning strategies in the process of language learning, the researcher of the present investigation has realized that it is definitely impossible for the present study to investigate all of learner-related variables in relation to Thai public university students' choice of language learning strategy use. Consequently, a series of variables in the present study have been carefully selected to investigate. Those variables appear to be likely neglected by most researchers (fields of study, and previous language learning experiences) together with the variable most frequently examined by most researchers (gender of students), and the variable not exclusively found in any empirical past research work (types of academic programs).

1.2 Terms Used in the Present Investigation

- **Language Learning Strategies**

“Language learning strategies” in the present investigation are specifically defined as conscious behaviours or thought processes used in performing learning actions whether observable (behaviours or techniques) or unobservable (thoughts or mental processes), that Thai public university freshmen themselves reported generating and making use of to enhance their L2 learning in the classroom and in a free learning situation.

The process of exploring the concept of language learning strategies, before trying to arrive at a possible definition, ‘working definition’, is done by taking a historical perspective, looking at different definitions over time (see Chapter 2, Section 2.2, for definition of language learning strategies in the study).

- **Thai University Freshmen**

Thai university freshmen refer to students whose nationalities are Thai and are first-year students studying a bachelor degree in academic year 2005 in all Thai public universities. The number of English learning hours per week they take may vary depending on their fields of study: science-oriented and non-science-oriented.

- **Types of Public Universities in Thailand**

Institutes which are under the jurisdiction of the Commission on Higher Education, Ministry of Education are located in different geographical regions of the country: north; south; northeast; east; and central region, altogether 23 universities. They are classified into two types according to their admission conditions: 1) limited admission universities (21 universities); and 2) open admission universities (2

universities). In this study, the participating public universities are limited admission universities where the main office, Office of the President, is situated.

- **Types of Academic Programs**

Undergraduate programs (a bachelor's degree) that the public universities in Thailand have recently offered could be classified into two types of academic programs: regular programs - using Thai as the medium of instruction - and international programs - using English as the main medium of instruction. Nowadays, among the 21 limited-admission public universities in Thailand, 10 public universities are offering international programs along with regular programs (Weerathaworn, 2004) (See the Appendix 1 for the list of public universities offering international programs).

- **Fields of Study**

“Fields of study” in this study are generally classified into two broad groups: science-oriented and non-science-oriented. The science-oriented field includes Medicine, Dentistry, Veterinary Science, Pharmacy, Public Health, Nursing, Medical Technology, Science, Environmental Science, Food Science, Engineering, and Architecture. The non-science-oriented field includes Business Administration/Management, Economics, Political Science, Sociology, Socio-Anthropology, Law, Education, Arts/Liberal Arts, Mass Communication, Social Sciences and Humanities.

- **Previous English Learning Experiences**

“Previous English learning experiences” in this study are specially classified into two groups: more experienced and less experienced. The classification is based on

the National Education Act of 1999, Thailand's formal system of education. English language learning is compulsory from Upper Primary level; i.e. Pathom Suksa 6. That means children mostly formally learn English approximately 8 years before starting at the tertiary level. However, it would not say that every primary school in Thailand could follow this regulation, especially remote area schools. The researcher, therefore, divide English language learning experiences into two groups: more experienced (more than 8 year English learning); and less experienced (8 year English learning or less) due to an attempt to cover most learners as many as possible.

1.3 Formal System of Education in Thailand

According to the National Education Act of 1999, Thailand's formal system of education is divided into two levels: basic education and higher education, with services provided through both public and private sectors.

- Basic education covers:

I. 2 years of pre-primary in the forms of nursery school or kindergarten, child care centres or child development centres. This level of education is not compulsory by aiming to encouraging the preparation for young children before entering primary schools. The age range of children under this category is 3-5 years;

II. 6 years of primary education which is compulsory for 6-11 year-old children; and

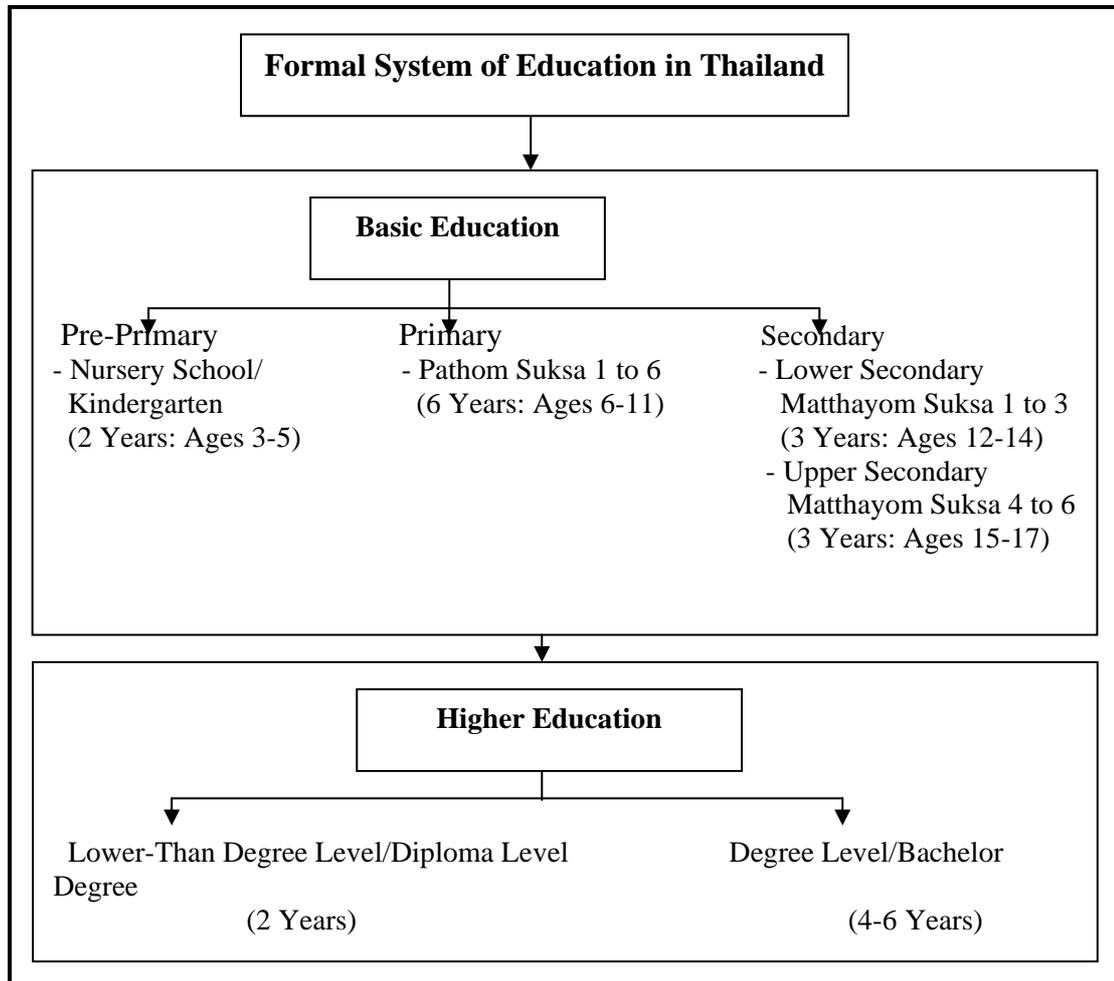
III. 3 years for lower secondary (12-14 years of age) and 3 years of upper secondary (15-17 years of age).

- Higher education or tertiary education is offered at universities, institutes, colleges, and other types of specialized institution. It is divided into two levels: lower-than degree level and degree level.

I. Lower-than degree level or diploma level is mainly offered by colleges and institutes, public and private vocational colleges, as well as colleges of physical education, dramatic arts and fine arts. The majority of courses offered are associated with vocational and teacher education. They require two years of study.

II. Degree level programs take two years of study for students who have already completed diploma courses, and four to six years of study for those finishing upper secondary education or equivalent courses. The first professional qualification is a Bachelor degree. Most Bachelor degrees take four years of study; however, some fields such as medicine, dentistry, and veterinary sciences take six years. Figure 1.1 below summarizes the present system of education in Thailand.

Figure 1.1: The Formal System of Education in Thailand



(The National Education Act, 1999)

1.4 English Language Teaching and Learning in the Thai Context

In the Thai educational system, generally English is a compulsory subject in almost every educational level (Office of the National Education Commission, 2001/2002). The English courses recently offered at the tertiary level can be classified into either one of the following categories (Intaraprasert, 2000):

- General English courses dealing with general content of English in everyday use for students in non-science-oriented area of study such as social sciences and humanities, education, arts; and
- Advanced English courses focusing on skill specialties in English for Academic Purposes (EAP) or English for Specific Purposes (ESP) for science-oriented students e.g. medicine, science, pharmacy, engineering students.

According to the official announcement regarding the policy of English teaching and learning at the tertiary level (The Ministry of Education, 2001), students studying at the tertiary level or higher education are generally required to take at least four English courses (twelve credits in total); the former two English courses (six credits) are English Foundation Courses 1 and 2. The latter two English courses (six credits) are either EAP or ESP. The goals of these four English courses cover two areas in which students need to develop communicative competence in English: social language and academic language. Each goal is supported by standards. The standards in goal 1 focus on using English to accomplish personal and social interaction tasks including addressing the similarities and differences between the language and own culture relationship. The standards in goal 2 concern with using English to accomplish personal and academic tasks, to further study, and to promote life-long learning. Both goals specifically target the use of learning strategies to enhance the use of English for social and academic purposes. Upon meeting these standards, students will develop language competence to function in a basic range of academic and social contexts.

1.5 Research Objectives

The present investigation aims at identifying what language learning strategies public university freshmen employ in learning English as a Foreign Language (EFL) in Thailand and clarifying how the investigated variables (gender, fields of study, previous language learning experiences, types of academic programs, and levels of language proficiency) relate to such learning strategies students employ in learning English. The specific aims of the present investigation are to examine:

1. To describe types of language learning strategies which Thai public university freshmen reported employing;
2. To examine the relationships between frequency of students' reported use of language learning strategies and the five independent variables, namely gender of students, fields of study, previous language learning experiences, types of academic programs, and levels of language proficiency; and
3. To investigate patterns of significant variation in the frequency of students' reported strategy use at different levels with reference to the five independent variables as mentioned in (2) above.

1.6 The Expected Outcomes of the Present Investigation

In Thailand, for almost two decades, language learning strategy research was initiated in contrary to the ideas and recommendations of Stern (1983) and Cohen (1998), that call for more studies dealing with a relationship between factors (e.g., social factors, learners' individual characteristics, attitudes, motivation, teachers' instructional processes, and an educational context, among many others) and how

these factors contribute to language learners' decisions to employ their language learning strategies in acquiring the target language. Most of studies conducted with Thai EFL learners have documented language learning strategies in striving for academic success (e.g. Kaotsombut, 2003; Lappayawichit, 1998; Ounwattana, 2000; Ratchadawisitikul, 1986). It is evident that a certain series of variables heavily focused on language learning strategies used by successful and unsuccessful students. Only a few studies have given some attention to some of those factors such as gender, learning styles, learners' perceptions of the usefulness of strategies, English learning experiences, and fields of study that can contribute to learners' language learning strategy use in relation to EFL proficiency (Intaraprasert, 2003; M.Ratanaphon, 1998; Torut, 1994).

The present investigation, therefore, aims to follow Stern's (1983) and Cohen's (1998) suggestions, by identifying what language learning strategies Thai public university freshmen employ in learning English and clarifying how the investigated variables (gender, fields of study, language learning experiences, and types of academic programs) relate to such learning strategies students employ in learning English, and their language proficiency levels.

Accordingly, the research study is important on two counts. One, exploration of language learning strategies in the Thai context, especially Thai public university freshmen, has not been done before. Therefore, this study will theoretically contribute to the research done in the area of foreign language teaching and learning in Thailand. The result obtained and the conclusions reached through this study may add to the body of research done in the area of foreign language learning strategies in the global context. This is because it cannot be assumed that every particular strategy

will be useful in all cultural contexts. What may be beneficial in one cultural environment may be considered to have a different effect in another.

Additionally, the understanding of any existing the relationship between language learning strategy use reported by Thai public university freshmen and the five variables including gender, fields of study, language learning experiences, types of academic programs, and levels of language proficiency will invariably provide insights to facilitate pedagogical implications for instruction and curriculum development in Thailand. First, learners of English as a foreign language should learn to recognize the strategies they are using and be advised to select more appropriate techniques for the instructional environment. Successful language learners may serve as informants for students experiencing less success in language learning regarding strategies, techniques, and study skills. Through monitoring each other, students can take an active part in not only learning but also teaching. Second, teachers should become more aware of the learner strategies that their students are (and are not) using so that teachers can develop their teaching styles and strategies to serve their students' ways of learning. Third, teachers can help students identify their current learning strategies by means of a variety of data collection methods: surveys; one-on-one and group interviews; diaries; think-aloud data or other means. Fourth, language curricula, materials and instructional approaches should incorporate diversified activities to accommodate the various characteristics of the individual learners found in the foreign language classroom. In addition, use of appropriate learning strategies can enable students to take responsibility for their own learning by enhancing learner autonomy, independence and self-direction (Dickinson, 1987). These factors are important because learners need to keep on learning when they are no longer in a

formal classroom setting (Oxford and Crookall 1989). Unlike most other characteristics of the learner, such as aptitude, motivation, personality, and general cognitive styles, learning strategies are teachable (O'Malley et al., 1985b; O'Malley and Chamot, 1990; Oxford, 1990). Thus teachers can help their students learn quicker, easier, and more effective by weaving learning strategy training into regular classrooms.

1.7 Summary

In this chapter, a description of the background of literature in the field of language learning strategies is given together with the background in the context of Thailand. This is followed with defining some terms used in the present investigation as well as reviewing the educational system and English language teaching and learning in Thailand. The research objectives are presented, and finally the expected outcomes of the study.

CHAPTER 2

REVIEW OF RELATED LITERATURE AND RESEARCH ON LANGUAGE LEARNING STRATEGIES

2.1 Introduction and Purpose of the Chapter

In recent years, there has been a prominent shift within the field of language learning and teaching over the last two decades with greater emphasis being put on learners and learning rather than on teachers and teaching. In parallel to this new shift of interest, how learners process new information and what kinds of strategies they employ to understand, learn or remember the information has been the primary concern of the researchers dealing with the area of foreign language learning. Research into language learning strategies began in the 1960s. In most of the research on language learning strategies, the primary concern has been on "identifying what good language learners report they do to learn a second or foreign language, or, in some cases, are observed doing while learning a second or foreign language." (Rubin and Wenden 1987: 19).

The notion of the 'good language learners'/learning strategies in the history of language learning strategy studies emerged from the 'post-methods' era (Brown, 2002: 5), in which attention has shifted from teaching and learning processes and the contributions of the individual teacher to language learning and teaching pedagogy.

The factors which have led to this shift are:

1. a general shift of perspective among methodologists and researchers from focusing on teachers and instruction towards learners and learning processes (Lassard-Clouston, 1997);
2. a broadening of theories of language learning to incorporate insights not only from applied linguistics, but also from cognitive psychology (O'Malley and Chamot, 1990); and
3. a broadening of the overall goals of language learning to include a contextual dimension of the study of language learning strategies (Coleman, 1991; Holliday, 1994; Stern, 1983).

As in the early studies, researchers tended to make lists of strategies and other features presumed to be essential for all "good L2 learners." Rubin (1975) suggests that the good L2 learner is a willing and accurate guesser; have a strong drive to communicate; are often uninhibited; dare to make mistakes; focus on form by looking for patterns and analyzing; take advantage of all practice opportunities; monitor their speech as well as that of others; and pay attention to meaning. Naiman et al. (1975), for example, made a list of strategies used by successful L2 learners, adding that they learn to think in the language and address the affective aspects of language acquisition.

The types of strategies used by different learners in different contexts, i.e. learning English as a foreign language (EFL), or learning English as a second language (ESL), vary due to different factors, such as stage of learning, task requirements, teacher expectations, age, gender, nationality/ethnicity, general learning style, personality traits, motivation level, and purpose for learning the language

(Oxford, 1990). Of all the learner factors, the relationship between the use of language learning strategies and success in mastering a second or foreign language has been the focus of considerable research over the past two decades (Oxford, 1989; Rubin, 1987).

This chapter mainly focuses on a review of related literature in language learning strategies in order to locate the present investigation in the context of previous research. Besides, the knowledge based upon which the present study is built is presented in terms of a brief discussion about how previous educational researchers variedly defined, characterized, and classified language learning strategies. This is followed by a review of related literature and research works on language learning strategies that have been conducted in other countries and Thailand in light of the focal points of the studies, participants, methods of data collection and analyses, as well as brief findings and results. The chapter describes a summary of the analysis of those research works in a chronological order starting from the mid 1970s towards the early of 2000s. At the end of the chapter, the theoretical framework for the present investigation is presented.

2.2 A Shift to an Emphasis on Learners and Learning Processes

The view of “learners as individuals” with regard to language learning strategies has been emphasized in TESOL. The trend of changes in TESOL methods is the result of this greater learner-centred emphasis in second language teaching and learning. Innovation in the language teaching field in the late 1980s and 1990s, therefore, has been stimulated by a particular concern for the individual’s language learning process (Larson-Freeman, 2000). Over the years, methods and approaches to

the teaching and learning of L2 have continuously changed (for instance the grammar-translation method, the audio lingual method, the communicative approach). These changes provide a methodology based on activities which sought to stimulate and replicate the authentic use of language, now advocating a learner rather than teacher-based view of learning. For example, in the communicative approach, learners are implicitly encouraged to take greater responsibility for their own learning (Oxford, Crookall, and Lavine, 1989). This differs from the emphasis in the previous methods and approaches (the grammar-translation method and the audio lingual method) which has typically been on how teachers teach, with relatively little attention paid to how learners learn. This illustrates how attention has shifted from teachers to learners.

The change of focus in applied linguistics also resulted in less emphasis on teaching and teaching, but greater emphasis on learners and learning. This change in ideas about language teaching and learning over two decades originally focused on 'affect' – emotional aspects of learning, which influenced learning processes, so-called 'humanistic approaches' (Stevick, 1990) – seeing language learning as a process of self-fulfilment, rather than the behaviourist approaches (Lightbown and Spada, 1999) – which saw language learning and development as derived from the result of the formation of habits on a stimulus/response/reinforcement basis. In the humanistic approaches (post-audiolingualism), learners and social interaction began to be considered. The techniques of these approaches emphasize the need to engage with learners' emotions and feelings along with linguistic knowledge and behavioural skills (Richards and Rodgers, 2001). This in turn requires the teacher to focus on such aspects as 'learning to learn', studying skills and generally to guide learners

towards attaining a greater degree of autonomy. According to Rubin (1987),

“...there was a growing interest in defining how learners can take charge of their own learning and clarifying how teachers can help students become more autonomous.” (p.15)

In line with the significant shift to greater learner-centred emphasis in second language teaching and learning, learners are recognized as individuals who are active participants, not passive recipients of knowledge, in the learning process. This view of language learning, which allowed for the possibility of learners taking deliberate actions to control their own learning, and achieve autonomy by the use of learning strategies has been researched and promoted by early educators in the field of applied linguistics such as Rubin (1975), Stern, (1975), and Naiman et al. (1975). They aimed at discovering how learners employ language learning strategies to actively promote their own learning. Their research works had a focus on what good language learners do in the process of learning a target language. These works were known as “Good Language Learner” (GLL) studies which initiate an interest in many language researchers to continuously work at studying the achievement of successful language learners (e.g. Halbach, 2000; Wharton, 2000; Linhua, 2001; Bremner, 1999; Gan, Humphreys, and Hamp-Lyons, 2004; Lengkanawati, 2004; and Su, 2005) in terms of language learning strategies.

Responding to an awareness that language learning strategies are, for example, “an extremely powerful learning tool” (O’Malley, Chamot, Stewner-Manzanares, Küpper and Russo, 1985a:43), or special ways to process information that enhance comprehension, learning, or the retention of information (O’Malley and Chamot, 1990), a study on “good language learners” has investigated how strategies affect language learning in the formal learning setting. The attempts to describe the ‘good

language learners' aim to serve the ultimate objective of better language teaching and learning, and the main concern must be learning outcomes – or so called L2 competence', or L2 proficiency (Naiman et al., 1975).

2.3 Language Learning Strategies in the View of Cognitive

Psychology

Language learning strategy research initiated with two main theoretical assumptions: 1) some students are more successful at learning language than others; and 2) this differential success rate is attributable to the varying strategies which different learners bring to the task (Griffiths and Parr, 2001). From these assumptions, which views that students are able to consciously influence their own learning, and enhance the effectiveness of their own learning, the learning of language becomes a cognitive process, similar to any other kind of learning in many ways (McLaughlin, 1978). This is likely to be opposed to the Behaviourist view of Skinner (1957), who believes that language development is the result of a set of habits. Behaviourism Knowledge is the product of interaction with the environment through stimulus-response conditioning. Learners, in this view, are not all to readily transfer the habits they had mastered in the classroom to communicate outside it (Larsen-Freeman, 2000). Language learning strategy, however, operates alongside with another theory of language learning acquisition, i.e. cognitive theory.

The cognitive theory began in the early 1970s due to the limitations of the Behaviourist view (Larsen-Freeman, 2000). In the cognitive theory, learning is an active and constructive process in which learners themselves select and organize informational input step by step with relation to the input of their prior knowledge,

then retain what is important, and finally reflect on the outcome of their learning efforts through experience and practice (Chamot et al., 1993). The emphasis on human cognition led to the establishment of the Cognitive Approach (Celce-Murcia, 1991 in Larsen-Freeman, 2000). Given the complexities and intricacies of mental processes involved in language learning, second language learning is considered as a complex cognitive skill (Rausch, 1998). In keeping with this perception, past researchers (e.g. Rubin, 1975 and Wenden, 1985) believe that these cognitive processes can be identified through the specific strategy uses of good language learners. The strategies employed by those learners are identified and then are suggested for unsuccessful language learners to apply in order to make them successful in learning languages. Most of language teachers' time, therefore, might be profitably spent in learning strategy training in order to improve learners' learning effectiveness (Wenden, 1985).

With an application of the cognitive theory in the field of second language acquisition, O'Malley and Chamot (1990) propose a view that language learning is the complex and conscious process. Additionally, O'Malley and Chamot (1990) note that, in the cognitive theory 'individuals are said to "process" information, and the thoughts involved in this cognitive activity are referred to as "mental process."' Language learning strategies, therefore, are special ways to process information that enhance comprehension, learning, or retention of the information (O'Malley and Chamot, 1990). Similarly to O'Malley and Chamot, Wenden (1987) highlights the fact that the theory and research on the nature of mind in the field of cognitive science have provided theoretical input for examining how learners learn target languages.

2.4 Language Learning Strategies with More Emphasis on a Contextual Dimension

Despite the interesting insights provided by the literature dealing with strategies, in which most of the language learning strategy studies, began to emerge in the 1970s, has been carried out to recognize the importance of strategy use of language learning has long been recognized (e.g. Oxford 1989, 1990; Rubin, 1975; Stern 1975), the focus and methodological approaches have shed little light on how contextual factors relate to learners' use (or nonuse) of the known strategies. The focus on effects of the relationship between learner and contextual factors on language learning strategies has been turned to specify more on learners' interaction with their environment, for example, in Coleman (1996), Holliday (1994), and Stern (1983). This is because 'language is not isolated from society' (Stern, 1983: 241).

According to Coleman (1996) and Holliday (1994), the influence of social context on second language acquisition/learning is strongly emphasized. They explain the social context as social forces within both the institution and the wider community outside the classroom, and which in turn influence the way in which people, i.e. social interaction between teacher and learners, deal with each other in the classroom. To promote the concept of teacher-learner partnership, it is truly crucial to seek for clear understanding on what really happens in the classroom and between teacher and students. The social context in which teaching and learning take place is considered an important source of explanation for classroom phenomena.

Based on Holliday (1994), the classroom is described as a micro social context in the sense that what happens within the classroom reflects, affects, and is affected by the complex of influences and interests of macro social context, i.e. the host

educational environment (consisting the host country's ministry of education, aid agency, and other involved government institutions). Investigating the micro context to discover what happens between teacher and students will be through looking at the macro context additionally, that is, the wider social relationships between classroom participants and influences from outside the classroom.

In conclusion, language learning strategy research regarding 'good language learners' is partially responded to the main trend of changes in second language teaching and learning. The study of language learning strategies employed by good/successful language learners is linked to cognitive psychology in the theory of second language acquisition/learning, as well as to the dimension of language learning context. Language learning strategy studies, in this sense, seem to capture more the emphasis which is placed not only on the learners as the actively participating individuals in the process of learning whereby they use their own thinking process, or cognition to discover the roles of the language they acquire and of language learning strategy choice they make, but also particular references to learners' language learning success that will vary according to the extent that they take part in their L2 learning program.

2.5 Definitions and Classifications of Language Learning Strategies

2.5.1 Working Definition of Language Learning Strategies in this Study

Before describing how to define and classify language learning strategies of the study, it is important to clarify the arguments given by some scholars (e.g. Dörnyei, 2005) regarding the existence and significance of language learning strategies. In his book, Dörnyei (2005) proposes the new perspective dealing with

language learning strategies; that is, learning strategies are extremely ambiguous phenomena, and the nature of the language learning concept does not exist. Therefore, a shift is proposed to use the term ‘self-regulations’ instead of language learning strategies.

From this perspective, it would rather say that although there is no definite agreement about term, definition, and classification of language learning strategies, they do exist, together with their influence on second language acquisition has been acknowledged (citing the papers of, Cole, Bates, and MacWhinney, Wode, Winitz in Winitz (ed), 1981, in Wenden and Rubin, 1987). Furthermore, using the term ‘self-regulations’ instead of ‘language learning strategies’ seems impractical. Since in applied linguistics research, it appears that self-regulations are part of language learning strategies. In Vygotsky’s theory, self-regulation is “the process of planning, guiding, and monitoring one’s own attention and behaviour” (citing Berk and Winsler, 1995: 171 in Oxford, 2003). The term ‘self-regulations’, in this sense, does not seem broader than language learning strategies. As supported in Oxford (2003),

“Planning, guiding, and monitoring oneself, along with organizing and evaluating one’s own learning, are collectively known as ‘metacognitive learning strategies,’ though Vygotsky did not use the term ‘strategies’.” (p.86)

Self-regulations, therefore, have been identified as a subset of language learning strategies known as metacognitive strategies – regulation of cognition or executive control of self-management through processes as planning, monitoring, and evaluating – as identified in the recent classifications of language learning strategies (e.g. O’Malley, Chamot, Stewner-Manzanares, Russo, and Küpper, 1985a; Oxford, 1990; Zimmerman and Martinez-Pons, 1990).

Although, the term, definition, classification, and characteristics of language learning strategies have been one of the fundamental problems that continued to be stressed in the early studies, this problem has been truly considered, and there is no definite agreement for defining and terming and classifying language learning strategies. This is because different definitions of language learning strategies have been proposed largely according to a variety of contexts. As O'Malley, Chamot, Stewner-Manzanares, Küpper and Russo (1985a) put it this way,

“[T]here is no consensus on what constitutes a learning strategy in second language or how these differ from other types of learner activities...even with the group of activities most often referred to as learning strategies, there is considerable confusion about definitions of specific strategies and about the hierarchic relationship among strategies.” (p.22)

Additionally, Dörnyei (2005) states, “...we cannot offer a watertight definition of ‘learning strategies’.” (p.166)

Although such issues previously highlighted by O'Malley et al. (1985a) and Dörnyei (2005) are concerned, it is really necessary to try to define and classify language learning strategies in the present study in order to frame the focal point of the study. While doing that, the study does not attempt to propose a new definition or classification to add in the collection of recent language learning strategy definition and classification. Besides, listing all available definitions or classifications of language learning strategies does not mean to find the best definition or classification that everybody agrees upon. Instead, it seeks to explore key terms and aspects from the existing definitions and classifications, which are of direct relevance to the current study.

The process of exploring the concept of language learning strategies from recent definitions is approached before arriving at the working definition of the study. As Ellis (1994) suggests, one of the most suitable approaches to defining language learning strategies is to try to list their main characteristics. To do so, reviewing the recent definitions of language learning strategies is one way to facilitate the process of defining the term of language learning strategies in this study. The following list of definitions is provided in Table 2.1.

Table 2.1: Definitions of Language Learning Strategies

Researcher	Definition
	Language learning strategies have been defined as...
Bialystok (1978: 76)	[M]ethods operated in the model of second language learning to exploit available information to increase the proficiency of second language learning.
Stern (1983: 405)	[P]articular forms of observable learning behaviour, more or less consciously employed by the learner.
Weinstein and Mayer (1986: 315)	[T]he behaviours and thoughts that a learner engages in during learning that are intended to influence the learner's encoding process.
Chamot (1987: 71)	[T]echniques, approaches or deliberate actions that students take in order to facilitate the learning and recall of both linguistic and content area information.
Wenden (1987: 6)	[L]anguage learning behaviours learners actually engage in to learn and regulate the learning of a second language...what they know about the strategies they use...what they know about aspects of their language learning other than the strategies they use.

Table 2.1 (contd): Definitions of Language Learning Strategies

Researcher	Definition
	Language learning strategies have been defined as...
Wenden and Rubin (1987: 19)	[T]he behaviours and thought processes that learners use in the process of learning including any sets of operations, steps, plans, routines used by the learner to facilitate the obtaining, storage, retrieval, and use of information.
Oxford (1990:8)	[S]pecific actions taken by the learner to make learning easier, faster, more enjoyable, more self-directed, more effective, and more transferable to new situations.
MacIntyre (1994: 185)	[T]he techniques and tricks that learners use to make the language easier to master.
O'Malley and Chamot (1995: 1)	[T]he special thoughts or behaviours that individuals use to help them comprehend, learn, or retain new information.
Ellis (1997: 76-77)	[P]articular approaches or techniques that learners employ to try to learn L2. They can be behavioural (for example, repeating new words aloud to help you remember them) or they can be mental (for example, using the linguistic or situational context to infer the meaning of a new word).
Cohen (1998: 4)	[L]earning processes which are consciously selected by the learner. The element of choice is important here because this is what gives a strategy its special character. These are also moves which the learner is at least partially aware of, even if full attention is not being given to them.
Brown (2000: 122-127)	[S]pecific attacks that are made on a given problem. They are moment-by-moment techniques employed to solve problems passed by second language input and output.
Weinstein, Husman, and Dierking (2000: 727)	[A]ny thoughts, behaviours, beliefs, or emotions that facilitate the acquisition, understanding, or later transfer of new knowledge and skills.

The following list characterizes how the term ‘language learning strategies’ has been used in the recent studies to be considered in the present study. Language learning strategies:

- are steps taken and generated by language learners to process, store, and retrieve information;
- are approaches/ techniques/tricks employed during learning to develop language competence in the learners’ language skills;
- are strategies that could be transferred from one language or language skill to another;
- involve information, knowledge, and language tasks;
- allow learners to become self-directed, and effective;
- are employed either consciously, or unconsciously;
- are a choice/a desire for learning control on the part of the learner;
- are observable (behaviours, steps, techniques, etc.) and unobservable (thoughts or mental process).

If looking again at the mentioned definitions of language learning strategies, we can see that the original ‘working definition’ of the present study is emerged in consistence with the following four concepts:

(1) conscious behaviours or thought processes used in performing learning actions, (2) whether observable (behaviours or techniques) or unobservable (thoughts or mental process), or both, that (3) Thai public university freshmen themselves reported generating and making use of to enhance their L2 learning (4) in the classroom and in a free learning situation.

To test the original definition with the light of other scholars’ work, each of its four parts will be taken in turn and considered regarding a historical perspective by looking at different definitions over time.

1. Language learning strategies as conscious behaviours or thought processes used in performing learning actions

The notions of ‘behaviours and thought processes’ are identified by other authors’ understandings of the terms. Following are examples of definitions in which language learning strategies are referred to as behaviours and thought processes:

“[T]he special thoughts or behaviours that individuals use to help them comprehend, learn, or retain new information.”

O’Malley and Chamot (1995: 1)

“[T]he behaviours and thoughts that a learner engages in during learning that are intended to influence the learner’s encoding process.”

Weinstein and Mayer (1986: 315)

“[A]ny thoughts, behaviours, beliefs, or emotions that facilitate the acquisition, understanding, or later transfer of new knowledge and skills.”

Weinstein, Husman, and Dierking (2000: 727)

“[T]he behaviours and thought processes that learners use in the process of learning including any sets of operations, steps, plans, routines used by the learner to facilitate the obtaining, storage, retrieval, and use of information.”

Wenden and Rubin (1987: 19)

These definitions capture the elements and the purposes of language learning strategies. It can be seen that language learning strategies are indicated as the specific behaviours and thoughts taken by the learners have to be conscious in order for them to be termed to be strategies. Chamot, Küpper, and Impink-Hernandez (1987) believe that when learners employ strategies without conscious awareness, those strategies can no longer to be considered to be strategies. Agreeing with Chamot et al. (1987), Cohen (1995) expresses the same idea with his own words:

“If a learner’s behaviour is totally unconscious so that the given learner is not able to identify any strategies associated with it, then the behaviour would simply be referred to as a process, not a strategy.” (p.3)

Similarly, Brown (2000) refers a process to the characteristics of unconscious learning behaviours as those performed by all humans of normal intelligence. Oxford (1995), in addition, stresses consciousness as an important criterion for strategies: “the strategy concept has been applied to ...situations, where it has come to mean a plan, step, or conscious action towards achievement of an objective” (Oxford, 1995: 8). Language learning strategies in Oxford (1990); and Wenden (1987) are linked to language learning behaviours that contribute to learning both directly and indirectly. Direct contribution to learning means what learners do to control and/or transform incoming knowledge about the language e.g. guessing meaning from context or outlining a reading to retrieve and use the learnt knowledge. Indirect contribution to learning, on the other hand, means how learners use their limited linguistic repertoire to communicate e.g. using gestures and what they do to create opportunities to learn and use the language such as watching English movies or meeting foreign friends. To summarize, terming language learning strategies in this sense will particularly specify as being conscious behaviours and thoughts that contribute directly and indirectly to L2 learning process.

2. Language learning strategies as observable or unobservable, or both

Referring to the definitions by different researchers, it can be seen that there are some discussions as to distinguish whether language learning strategies are to be perceived of as observable behaviours or mental processes that are unobservable or as both (Ellis, 1994). Examples of this discussion are illustrated in Oxford (1989),

Nunan (1991), and Carver (1984). Oxford considers the language learning strategies as observable behaviours whereas Nunan sees them as mental processes, which means that they are unobservable and Carver (1984) considers that language learning strategies as overt and implicit forms of behaviours, i.e. both observable and unobservable.

Following Carver (1984) and Ellis (1994), the researchers of the language learning strategy investigations (e.g. Stern, 1983; Wenden, 1987) have seen language learning strategies as behaviours or thought processes that underline the performing of learning actions, whether observable (behaviours or techniques) or unobservable (thoughts or mental process). This is because some strategies are behavioural while others are mental (Ellis, 1994; Wenden, 1987). Thus some strategies are directly observable e.g. asking a question, while others are not such as making a mental comparison. So, the second aspect of language learning strategy definition in this study covers language learning behaviours which are both observable and unobservable.

3. Language learning strategies in the Thai public university context

“Any particular culture of learning will have its roots in the educational, and more broadly, cultural traditions of the community or society in which it is located.”

(Cortazzi and Jin, 1996: 169)

The reason why the language learning context is taken into consideration as one key aspect in the definition of the current study is to gain a better understanding of how the Thai cultural dimension influences what happens in public university EFL classrooms. To do so, the study tries to consider how the learning context is

experienced and interpreted by the individual learner, and what influence the learning context has on learners' language learning and the conditions of learning.

Learning does not happen in isolation. The learning process cannot be separated from the activities through which knowledge is developed or the cultural context in which these activities take place (Brown, Collins and Dugild, 1989; Oxford, 1996). As such it can be seen that culture and learning activities work as a whole influencing and informing each other (Brown et al. 1989; Oxford, 1996). Brown et al. (1989) further argue that educational activities in a given context are formed by its culture, and their meanings and purposes are socially constructed. Social and cultural differences have been considered and explored by researchers and it is understood that classroom practices which reflect learners' perceptions toward language and language learning, are embedded in the sociocultural context (Coleman, 1996).

Research in language learning strategies has long pointed to the sociocultural context in which learners operate. The learners' cultural background affects their language learning strategy choices (Levine, Reves, and Leaver, 1996; Oxford, 1996, Oxford and Nyikos, 1989; Politzer and McGroarty, 1985; Rubin, 1975). Those studies done in various parts of the world (e.g. the United States of America, Japan, Israel) show that learners' language learning strategy choice positively correlate with their cultural backgrounds. In this study, therefore, differences in language learning experiences are also considered as an important element that contributes to the learners' language learning strategy use.

4. Language learning strategies in the classroom and in a free learning situation

When considering the features of language learning strategies that have been recognized by a number of researchers in the field of language learning strategy study (e.g. Chesterfield and Chesterfield, 1985; Naiman et al., 1975; O'Malley et al., 1985a), it can be seen that language learning strategies have principally been identified under classroom-based processes. Although these classroom-based learning strategies give some insight into what kinds of language learning strategies are in learners' repertoires as well as the learners' reasons for using them in the classroom setting, "descriptive work on strategy use in cooperative learning settings or in nonclassroom environments also needs attention" (O'Malley and Chamot, 1990: 224). Chaudron (1988) also points out that

"...an important area of research on language learning has been concerned with the cognitive operations that learners apply while in classrooms and other learning situations..." (p.109)

Researchers in the area of language learning strategies often mention out-of-class strategies in general, but they are hardly explored in any depth (Pickard, 1996). Naiman et al. (1975), for example, identify the 'active task approach' whereby learners involve themselves actively in a number of different ways. These include adding related language learning activities to their regular classroom input such as reading in the foreign language, listening to tapes in the car, listening to the news, reading novels in L2, and writing to pen-friends. However, there is some research work (e.g. Intaraprasert, 2000) attempting to highlight the importance of the out-of-class strategies employed by EFL learners outside the classroom. Intaraprasert (2000: 102-103) shows another way to explore language learners' use of learning strategies according to *their being used in order to achieve particular language learning*

purposes, either classroom-related or classroom independent. This precise nature of the language learning activities undertaken by learners outside the classroom provides some insight of how the language learning strategies encompass student-initiated activities. So, the fourth aspect in the definition of language learning strategies, here, should be viewed in a broader sense with a deeper understanding by covering those generated and used by language learners in both the formal and informal settings.

In conclusion, based on the review of the recent definitions of language learning strategies provided by other scholars, the working definition of language learning strategies in the present study remains a combination of four key aspects. In the first aspect, language learning strategies refer to conscious behaviours or thought processes which lead to learning actions. These conscious behaviours or thought processes can be either observable (behaviours or techniques) or unobservable (thoughts or mental process). In addition, it appears to be rather an incomplete definition with ignoring the concepts of how and why learning context and social interaction have a major impact on learners' language learning strategy use. Hence, language learning experiences in Thai public university context is considered as one element associating with EFL learners to generate their choices of language learning strategy use while learning their L2. Finally, language learning environment in terms of classroom setting and free learning setting is another concept that should be included in the belief that it does seem have some effect on L2 learning. Learners' language learning strategy use, in this sense, probably varies according to the language learning situations.

2.5.2 Classification Systems of Language Learning Strategies

It is evident that not only how to define language learning strategies remains questioned in the field of language learning strategies, but also how to classify them is apparently unanswered, according to Oxford (1990):

“[T]here is no complete agreement on exactly what strategies are; how many strategies exist; how they should be defined, demarcated, and categorized; and whether it is - or ever will be - possible to create a real, scientifically validated hierarchy of strategies...Classification conflicts are inevitable.” (p.17)

This results from the fact that using different criteria and systems in defining and classifying language learning strategies causes inconsistencies, and mismatches across existing taxonomies and other categories (Cohen, 1998). Ellis (1994) underscores that language learning strategy has been classified variously according to researchers' own experiences. In other words, classification systems of language learning strategies have been derived as the result of the particular participants that the researchers worked with, the setting, and the researchers' particular interests. Therefore, individual researchers have their own classification systems of language learning strategies, which are derived from their direct experiences; i.e. their personal experiences (e.g. Stern 1983, and 1992), the understanding discovered from their own language learning strategy investigations (e.g. Stern 1975, 1983, 1992, Rubin 1975, 1981, O'Malley and Chamot 1990, Oxford 1990, Coleman 1991, and Intaraprasert 2000), or their indirect experiences; i.e. their knowledge and understanding expanded from reviewing other researchers' works and theories (Rubin 1975, 1981, Stern 1983, 1992, Carver 1984, and Ellis and Sinclair 1989).

In the present study, what language learning strategies employed by the population of the study; that is, language learning strategy use of Thai university

freshmen, and how to classify their language learning strategies are now unanswered. This is because it truly depends on the preliminary data that is provided by the interview data in the process of research instrument design. This process includes two phases: Phase 1 (gaining the interview data to generate the questionnaire); and Phase 2 (generating the questionnaire after analyzing the interview data from Phase 1).

Nonetheless, if the researcher has to classify language learning strategies at the moment, based on the extensive review of literature, classifications of language learning strategies would probably be grouped into two main groups according to language learning settings: 1) language learning strategies employed inside classroom setting; and 2) those employed outside classroom setting. This classification is derived from the personal justification after putting all of the language learning strategies of the recent classifications in the lists together. The classifications include Stern (1975, 1983, 1992) Rubin (1975, 1981), Carver (1984), Ellis and Sinclair (1989), O'Malley and Chamot (1990), Oxford (1990), Coleman (1991), and Intaraprasert (2000). It can be noticed that language learning strategies employed through various operations can be broadly divided into formal and informal settings that language learners use in order to make sense of or manage their own learning in both formal and informal settings. Instead of looking at the lists of language learning strategies by different researchers only, we should also consider how they carried out their investigations in various learning contexts with different language learners in different settings.

What follows is a summary of language learning strategy classifications which have been proposed by eight researchers namely Stern (1975, 1983, 1992) Rubin

(1975, 1981), Carver (1984), Ellis and Sinclair (1989), O'Malley and Chamot (1990), Oxford (1990), Coleman (1991), and Intaraprasert (2000).

2.5.2.1 Language Learning Strategy Classification by Stern (1975, 1983, 1992)

One of the earliest classifications was provided by one of the pioneering researchers in the field of language learning strategies, Stern (1975, 1983). Stern (1975) has drawn up a list of ten strategies of good language learners, derived from three main sources which include: 1) his interpretation of language competence and the three main problems of second language acquisition; 2) his experience as a teacher and learner; and 3) his review of the literature of language learning.

The ten language learning strategies that mark out good language learners proposed by Stern (1975: 304-318, 1983: 289-415) are:

- 1. Planning strategy**
 - A personal learning style or positive learning strategies
- 2. Active strategy**
 - An active approach to the learning task
- 3. Empathetic strategy**
 - A tolerant and outgoing approach to the target language and empathy with its speakers
- 4. Experimental strategy**
 - A methodical but flexible approach, developing the new language into an ordered system and revising this system progressively
- 5. Formal strategy**
 - Technical know-how about to tackle a language
- 6. Semantic strategy**
 - Constantly searching for meaning
- 7. Practice strategy**
 - Willingness to practice
- 8. Communication strategy**
 - Willingness to use the language in real communication
- 9. Monitoring strategy**
 - Self-monitoring and critical sensitivity to language use
- 10. Internalization strategy**
 - Developing the target language more and more as a separate reference system and learning to think in it

In Stern's classification system, he has initially drawn up a list of ten learning strategies of good language learners. These strategies are derived on the basis of the idea that "learning strategies" refer to tendencies or characteristics of the approach employed by the language learners, they have been considered as particular forms of observable learning behaviour, more or less consciously. Language learning strategies, therefore, are considered as language learners' conscious choices.

After proposing the list of ten learning strategies, almost a decade later, Stern (1992) reclassifies them into five main categories of language learning strategies that good language learners are likely to employ for enhancing effective language learning. Language learning strategies in his view allow language learners to become more self-directed. Requiring effective language learning, many aspects are probably involved, not only the cognitive, but also the affective. Therefore, language learning strategies are classified by dividing into five main categories (Stern, 1992:262-266):

1. Management and planning strategies

- Learner's intention to direct one's own learning

2. Cognitive strategies

- Steps or operations used in learning or problem solving that require direct analysis, transformation, or synthesis of learning materials

3. Communicative-experiential strategies

- Techniques used to keep conversation going, e.g. using circumlocution, gesturing, paraphrasing, or asking for repetition and explanation

4. Interpersonal strategies

- Self-monitoring and self-evaluation

5. Affective strategies

- Influence of attitudes, emotions, motivation, and personality

2.5.2.2 Language Learning Strategy Classification by Rubin (1975, 1981)

Another pioneering researcher in the field of language learning strategies, Rubin (1975: 41-50, 1981: 117-131) also puts a focus on compiling inventories of the learning strategies that learners were observed to use or reported using in acquiring

knowledge. From conducting interviews with second language students, she proposes that there are two major types of learning strategies contributing directly or indirectly to language learning. Rubin's two-part classification of language learning strategies consists of six general strategies which may contribute directly to the language learning process, and two strategies which may contribute indirectly to the language learning process.

- Direct strategies

1. Clarification/verification

e.g. asking for an example of how to use a particular word or expression.

2. Guessing/inductive inferencing

e.g. using clues from other items in the sentence/phrase, or key words in a sentence to guess.

3. Deductive reasoning

e.g. inferring grammatical rules by analogy, or grouping words according to similarity of endings.

4. Practice

e.g. experimenting with new words in isolation and in context, or using mirror for practice

5. Memorization

e.g. taking notes of new items with or without texts and definitions

6. Monitoring

e.g. correcting error in own/other's pronunciation, vocabulary, spelling, grammar, and style

- Indirect strategies

1. Create opportunities for practice

e.g. initiating conversation with fellow student/teacher/native speaker, or creating situation with natives in order to verify/test/practice

2. Production tricks

(related to communication focus/drive, motivation/opportunity for exposure), e.g. using circumlocution and paraphrase to get message across, or repeating sentence or further understanding

Under her definition of language learning strategies; the techniques or devices which a learner may use, Rubin classifies language learning strategies into two main general categories according to strategy functions: direct strategies – direct contribution of process to learning; and indirect strategies – indirect contribution of

process to learning. From the overall picture of this two-part classification, it can be noticed that most of the strategies tend to include communication strategies rather than focus only on either formal language learning inside the classroom or informal language learning outside the classroom. This is a controversial inclusion since language learning strategies are seen by some scholars as two separate manifestations of language learner behaviour. Brown (1980: 87), for instance, draws a clear distinction between language learning strategies and communication strategies on the grounds that “communication is the output modality and learning is the input modality.” Brown (1980: 118) also concedes that “in the arena of linguistic interaction, it is sometimes difficult...to distinguish between the two.” Ellis (1994: 530) echoes Brown’s (1980) idea that there is “no easy way of telling whether a strategy is motivated by a desire to learn or a desire to communicate.” This inability to differentiate clearly between communication and language learning strategies does nothing to simplify the decision regarding what should or should not be included in learning strategy taxonomies such as Rubin’s (1981).

2.5.2.3 Language Learning Strategy Classification by Carver (1984)

Expanding the research work of Selinker (1972) and Tarone (1978, 1980), Carver (1984: 123-131) proposes that specific learner strategies, or so called *Plans* in his academic paper, can be divided as follows:

- 1. Strategies for coping with target language rules**
e.g. generalization, transfer from L1, simplification, reinterpretation, hypercorrection, and elimination of register differences
- 2. Strategies for receiving performance**
e.g. inferring from probability and knowledge of the world, checking by rereading/asking for repetition/simplification/self-interpreting confirmation, predicting from context clues, and identifying key terms from frequency/knowledge of context/chance

3. Strategies for producing performance

e.g. repeating sentences/key elements oneself, labelling discourse elements, lifting elements of interlocutor's language – sentences/expressions/ideas, rehearsing before production, monitoring reception of message, and using routines

4. Strategies for organizing learning

e.g. contacting with teachers or peers

In this classification system of learner strategies in “Plans, Learner Strategies and Self-Direction in Language Learning,” learner strategies that are subdivided into four categories include: 1) strategies for coping with target language rules are a set of strategies which are neutral with regard to production and reception; 2) strategies for receiving performance, it is a set of strategies coping with the reception of language performance; 3) strategies for producing performance are a set of strategies dealing with how to produce language learning performance e.g. repeating oneself, or rehearsing before production; and 4) strategies for organizing learning, which are related to the learners' organization of the learning task including repetition, cognition, whole or part learning, concentrated on spaced learning, together with cooperative learning through social interaction. Additionally, Carver suggests that learner strategies are either overt or covert behaviours, conscious or unconscious, arising directly from individual learning styles and habits.

2.5.2.4 Language Learning Strategy Classification by Ellis and Sinclair (1989)

Based on O'Malley et al (1985b)'s taxonomy identifying 26 strategies divided into three categories: metacognitive (knowing about learning), cognitive (specific to distinct learning activities), and social and communication strategies, Ellis and

Sinclair (1989: 151-154) have classified language learning strategies into four categories:

1. Metacognitive strategies

e.g. advance organization, directed attention, selective attention, self-management, advance preparation, self-monitoring, delayed production, self-evaluation, and self-reinforcement

2. Cognitive strategies

e.g. repetition, resourcing, directed physical response, translation, grouping, note-taking, deduction, recombination, imagery, auditory representation, key word memorization, contextualization, elaboration, knowledge transfer, inferencing, question for clarification

3. Social strategies

e.g. cooperative learning with other students and teachers

4. Communication strategies

e.g. discussing or sharing ideas and experiences with other students or teachers

In Ellis and Sinclair's classification system, metacognitive strategies involve thinking about the learning process, planning for learning, monitoring learning while it is taking place, or self-evaluation of learning after the task completion. Cognitive strategies are the strategies used to enhance comprehension, acquisition, or retention, e.g. audio-recording and note-taking. Social strategies or social interaction are employed to assist in the comprehension, learning, or retention of information, e.g. discussing and sharing ideas and experiences with other students and teachers. Communicative strategies are the strategies used to cope with difficulties in communicating in an imperfectly known second language, e.g. asking a speaker to speak more clearly and slowly.

2.5.2.5 Language Learning Strategy Classification by O'Malley and Chamot (1990)

With a different point of view, O'Malley and Chamot (1995) view language learning through the conscious process in learning – a cognitive theory of learning. They focus on theory development in second language acquisition that emerges from

cognitive psychology based on information processing model of learning developed by Anderson (1980) who describes language as a cognitive skill acquired through a “three-stage process” with an implication of a “production system”: the cognitive, the associative, and the automatic stages. O’Malley and Chamot have made a comprehensive attempt to base language learning strategy research on a cognitive psychological framework. Linguistic theories of second language acquisition maintain that “language is learned separately from cognitive skills and operated according to different principles from most learned behaviour (p.16). They suggest that this view is not absolutely accurate and it should be supplemented with a view to include both cognitive and metacognitive levels in second language learning. This language learning strategies classification scheme which is derived from student interviews was developed to draw on the distinction in cognitive psychology between metacognitive and cognitive strategies with supplementing a third category, social/affective strategies (O’Malley and Chamot 1985b, 1988 and Chamot 1987). Through the information-processing model on which their research is based, three major types of strategy are distinguished (O’Malley and Chamot, 1995: 119):

1. Metacognitive strategies

e.g. self-management, self-monitoring, self-evaluation of learning after the task completion

2. Cognitive strategies

e.g. repetition such as previewing the organizing concept or principle , key word, inferencing

3. Social/Affective strategies

e.g. cooperation, questioning for clarification, self-talk

O’Malley and Chamot (1990: 137-139) classify language learning strategies into three general categories which are: 1) metacognitive strategies, which are an executive function and planning for monitoring and evaluating the success of a learning task, e.g. self-management (being aware of the conditions that promote

learning and trying to create those conditions), self-monitoring (involving checking or correcting one's comprehension or production), self-evaluation (assessing one's linguistic and communicative competence) of learning after the task completion; 2) cognitive strategies, which are mental manipulation or transformation of materials or tasks to enhance comprehension, acquisition, or retention, e.g. repetition (imitating a language model aloud or silently), key word (remembering a target item by choosing an L1 word which is acoustically similar to the new word and making mental images linking it with the new word), inferencing (using all available sources of information to guess the meaning of unknown items and fill in missing parts); and 3) social/affective strategies, which are social interaction used to assist in the comprehension, learning, or retention of information as well as mental control over personal factors interfering with learning, e.g. cooperation (working with fellow students to compare notes, solve a language problem or get feedback on a task), questioning for clarification (asking the teacher or a native speaker for repetition, explanation and/or examples), self-talk (encouraging or reassuring oneself about one's ability to perform a task by making positive statements).

2.5.2.6 Language Learning Strategy Classification by Oxford (1990)

Similar to Rubin (1975, 1981), Oxford (1990) also classifies language learning strategies on the basis of strategy functions. Oxford (1990: 9) considers the aim of language learning strategies as being oriented towards the development of communicative competence. Oxford (1990) proposes the categorized language learning strategies by questionnaire data. The data divided language learning strategies into two main categories: direct strategies (working with the language itself) and indirect strategies (supporting direct strategies with internal guide – self-directed

learning). Oxford's (1990: 17) taxonomy of language learning strategies is illustrated in the following:

1. Direct strategies

1.1 Memory strategies

- Creating mental linkages such as grouping, imagery, rhyming, and structured

1.2 Cognitive strategies

- Practicing such as reasoning, analyzing, summarizing, and general practicing

1.3 Compensation strategies (to compensate for limited knowledge)

- Guessing intelligently such as guessing meanings from context in reading and listening, and using synonyms and gestures to convey meaning when the precise expression is unknown

2. Indirect strategies

2.1 Metacognitive strategies

- Centering/arranging/evaluating your learning such as paying attention, consciously searching for practice opportunities, planning for language tasks, self-evaluating one's progress, and monitoring errors

2.2 Affective strategies

- Relating to emotion and motivation such as anxiety reduction, self-encouragement, and self-reward

2.3 Social strategies

- Interaction with others such as asking questions, cooperating with native speakers of the language, and becoming culturally aware

In Oxford's classification system, metacognitive strategies help learners to regulate their learning. Affective strategies are concerned with the learner's emotional requirements such as confidence, while social strategies lead to increase interaction with the target language. Cognitive strategies are the mental strategies learners use to make sense of their learning, memory strategies are those used for storage information, and compensation strategies help learners to overcome knowledge gaps to continue the communication. These six categories which underlie the Strategy Inventory for Language Learning (SILL) have been used by Oxford and others for a great deal of research in the field of language learning strategy studies.

As stated in Ellis (1994), Oxford's taxonomy is "perhaps the most comprehensive classification of learning strategies to date" (p.539).

2.5.2.7 Language Learning Strategy Classification by Coleman (1991)

Coleman (1991: 48-50) has another idea in classifying learning strategies, particularly learning language in the setting of large classes. "Strategies in the large class" are included as a new category as an "environmental" or "contextual" strategy in the classification system together with other language learning strategies: metacognitive, cognitive, and social/affective strategies. His language learning strategy classification is derived from the preliminary data provided by his small-scale investigation. The investigation was organized with approximately 40 Thai teachers mostly working as university teachers. They produced a list of 77 learning strategies that are basically believed that represent good language learners. The data of these strategies were classified under 18 strategy types. Then they were regrouped into three broad categories:

A. Related to the taught program

- A1. Before class, such as preparing the lesson before coming to the class
- A2. In the class, such as asking questions, or paying attention;
- A3. After the class, such as contacting the teacher and asking questions

B. Extra to the class, such as mixing with English speakers, using libraries and the media

C. Bucking the system, such as finding privilege information, or sitting near bright students

In this category, some aspects of metacognitive and social strategies are combined in the way that explores how successful and unsuccessful language learners prepare and manage themselves in the large-class learning context.

2.5.2.8 Language Learning Strategy Classification by Intaraprasert (2000)

Apart from the language learning strategy classification systems shown previously, Intaraprasert (2000: 102-103) shows another way to classify learners' learning strategies. In his study, he generated his own language learning strategy inventory derived from the result of student oral interviews. The reported strategies were classified according to *their being used in order to achieve particular language learning purposes, either classroom-related or classroom independent*. As a result, the inventory includes two main language learning strategy categories, i.e. classroom-related strategies and classroom-independent strategies.

I. Language learning strategies in the classroom-related category (CRP)

1. To be well-prepared for the lessons

- 1.1 Study the lessons beforehand
- 1.2 Try some exercises in advance
- 1.3 Prepare oneself physically
- 1.4 Do revision of the previous lessons

2. To keep up with the teacher while studying in the classroom

- 2.1 Listen to the teacher attentively
- 2.2 Attend the class regularly
- 2.3 Take notes while studying in class with the teacher
- 2.4 Think to oneself along with the teacher while studying in class

3. To get the teacher's attention in the classroom

- 3.1 Try to have an interaction with the teacher by asking or answering questions while studying in class
- 3.2 Take part in class room activities rather than asking or answering questions
- 3.3 Try to have an interaction with the teacher outside the class time

4. To learn new vocabulary in the classroom lessons

- 4.1 Memorize new words
- 4.2 Use a dictionary to check the meaning of a new vocabulary item either in Thai or in English
- 4.3 Guess the meaning of a new vocabulary item from the context
- 4.4 Look at the root or the form of a new vocabulary item
- 4.5 Group new vocabulary items according to their similarity in meaning or spellings
- 4.6 Use new vocabulary items to converse with peers

5. **To avoid being distracted while studying**
 - 5.1 Try to get a seat in the front row
 - 5.2 Try not to talk with other students while studying
 - 5.3 Sit next to a bright or quiet student
 - 5.4 Try not to pay attention to what other students are doing while studying
 6. **To solve the problems encountered in the classroom lessons**
 - 6.1 Ask the teacher in class either immediately or when appropriate
 - 6.2 Ask the teacher after class
 - 6.3 Ask a classmate or classmates either in class or outside class
 - 6.4 Ask other people than one's regular teacher or classmates
 7. **To pass the English examinations**
 - 7.1 Do the revision of lessons only for the examination
 - 7.2 Practice tests from different sources
 - 7.3 Join a tutoring group
 - 7.4 Attend extra classes at a private school
- II. Strategies in the classroom-independent category (CIP)**
1. **To expand their knowledge of English vocabulary and expressions**
 - 1.1 Read printed materials in English such as billboards, leaflets, newspaper, and magazines
 - 1.2 Play games in English such as crosswords and computer games
 - 1.3 Watch an English-speaking film
 - 1.4 Listen to English songs
 2. **To improve one's listening skill**
 - 2.1 Watch an English-speaking film
 - 2.2 Listen to English songs or cassette tapes of English conversations
 - 2.3 Listen to a radio program in English
 - 2.4 Watch television programs in English
 3. **To improve one's speaking skill**
 - 3.1 Talk to oneself
 - 3.2 Try to imitate a native speaker from media such as films or cassette tapes
 - 3.3 Converse in English with peers, siblings or foreigners
 - 3.4 Use a computer program like a 'chat' program
 - 3.5 Go to a private language school
 4. **To improve one's writing skill**
 - 4.1 Correspond in English by electronic mail (e-mail) or by a letter
 - 4.2 Practice writing sentences or essays in English
 - 4.3 Practice translating from Thai into English
 5. **To acquire general knowledge in English**
 - 5.1 Seek an opportunity to be exposed to English
 - 5.2 Go to a private language school
 - 5.3 Read printed materials such as books, textbooks or magazines in English
 - 5.4 Surf the Internet

In his investigation, Intaraprasert (2000) offers the definition that language learning strategies refer to any set of techniques or devices including learning behaviours whether observable or unobservable that engineering students employ, more or less consciously or intentionally, in order to deal with the English language learning in either a classroom or outside a classroom setting. As a result, the language learning strategies on his classification tend to be conscious choices that different learners themselves can make to facilitate their learning of the target language. He also suggested that language learning strategies would be meaningless in case the language learners do not know how to use them appropriately in order to promote their language learning.

2.5.3 Summary

In conclusion, among the language learning classifications mentioned above, it can be noticed that the process of establishing definitions and classification systems for language learning strategies is far from straightforward due to overlapping and conflicting opinion. Different researchers have different ways of classifying language learning strategies. This likely depends on 1) their own experiences; for example, as language learners, or language teachers, 2) their investigation, and/or 3) their literature review. Among the eight classifications mentioned above, the most apparent differences show in the main categories of language learning strategies. For example, both Rubin (1981) and Oxford (1990) divides language learning strategies into two main categories: Direct and Indirect Strategies, while O'Malley and Chamot (1990) proposed three broad types of language learning strategies: Metacognitive, Cognitive, and Socio/Affective Strategies. In detail, unlike Oxford (1990), O'Malley and Chamot (1990) grouped affective strategies and social strategies together to form

another category known as Socio/Affective Strategies; in contrast, Oxford (1990) classified Affective and Social Strategies as separate categories. Furthermore, there are some distinguishes in subcategory schemes. For example, Rubin's (1981) clarification and verification are classified as two of Direct Strategies, whereas they are reported as two of Social Strategies in Indirect Strategies of Oxford's (1990) and Socio/Affective Strategies in O'Malley and Chamot's (1990). With the lack of consensus, whatever language learning strategies may be defined or classified, they are inevitably coming into conflict with one or other definitions and classification systems.

In the present study, what language learning strategies employed by the population of the study; that is, language learning strategy use of Thai university freshmen, and how to classify their language learning strategies remain unanswered. This may be because it truly depends on the preliminary data obtained through the student interviews as in the process of research instrument design which process includes two phases: Phase 1 (gaining the interview data to generate the questionnaire); and Phase 2 (generating the questionnaire after analyzing the interview data from Phase 1).

2.6 A Review of Previous Studies on Language Learning Strategies Conducted in Countries Other Than Thailand

Over the past two decades, there has been a great emphasis on how language learners deal with their target language learning. Especially since the mid-seventies, the first priority of the investigation seems to be placed on awareness that language learning strategies have the potential to be "an extremely powerful learning tool"

(O'Malley, Chamot, Stewner-Manzanares, Küpper and Russo, 1985a: 43). In response to this view, the main purpose for language learning strategy research was to describe the "good language learner." Rubin (1975), Stern (1975), and Naiman et al. (1975) are the pioneering researchers carrying out their work to identify what 'good' or 'successful' language learners actually do when they learn their target languages; e.g. English, French, German. The strategies employed by those learners were proposed and then were suggested for unsuccessful language learners to apply in order to make them successful in learning languages. The three studies from Rubin (1975), Stern (1975), and Naiman et al (1975) initiate an interest in many language researchers to continuously work at the achievement of successful language learners (see Bialystok 1981, Politzer 1983, and O'Malley et al 1985a). Another apparent observation is that none of these studies centred on factors affecting the individual differences in learners' language learning strategy use, e.g. gender, ethnicity, age, degree of language learning experiences, world knowledge, motivation, anxiety, beliefs, attitudes and learning styles – along with data on social context and learning conditions to explore the relationships between language learning strategies and learner performance.

Concerning the lack of attention given to how learner differences influence language learning strategy use and language achievement, there has been an increasing emphasis on how language learners' characteristics relate to their language performance. Much research has later been carried out accordingly, e.g. Bialystok and Fröhlich 1978, Ehrman and Oxford 1989, Oxford and Nyikos 1989, Oxford and Ehrman 1995, Yang 1999, Wharton 2000, Tercanlioglu 2004, and Ok 2005).

Table 2.2 below shows the structure of the analysis of past research including the purpose of study, the status of the target language in the context where the research has been conducted of the native language of the learners, the educational level of the participants, the main instrument (s) used in the study, investigated factors or variables, and brief results.

Table 2.2 : Research on Language Learning Strategies Conducted in Countries

Other than Thailand

Researcher	Participant	Study Focus	Method of Data Collection	Investigated Variable
1) Naiman et al. (1975)	34 highly proficient adult language learners mostly born in English-speaking parts of North America learning various L2 (s)	Strategies used by good language learners	- Interview - Observation	Language proficiency
Results: Successful language learners in general use more and better learning strategies than do poor learners				
2) Bialystok and Fröhlich (1978)	157 learners of French in Canada	Independent and dependent variables in classroom	Questionnaire	- Overall strategy use - Classroom learning achievement
Results: Many factors were correlated with language achievement, but only two of them: aptitude and strategy use were significant in predicting performance.				
3) Bialystok (1981)	157 learners of French in Canada	Conscious learning strategies	Questionnaire	Language achievement
Results:				
- A high correlation between formal and functional practices rather than monitoring and inferencing strategies.				
- A relationship between modality (speaking, reading, writing, and listening) and the effects of particular strategies on achievement.				
- No correlation between frequency and success of the use of language learning strategies				

Table 2.2 (contd): Research on Language Learning Strategies Conducted in Countries Other than Thailand

Researcher	Participant	Study Focus	Method of Data Collection	Investigated Variable
4) Politzer (1983)	Nonnative-speaking English students learning foreign languages in a tertiary level	Good language learners' learning behaviours	Questionnaire	1. Students' grade 2. Course level 3. Gender
Results: - Both beginning and intermediate level English proficiency students could identify and report their use of a wide variety of learning strategies. - Self-reported strategies did not entirely reflect true behaviors.				
5) Chesterfield and Chesterfield (1985)	15 Mexican-American bilingual pre-school children	Overall strategy use	Observation	Language proficiency
Results: The popularity of strategies in listening comprehension				
6) O'Malley et al. (1985a)	70 high school ESL learners in USA	Overall strategy use	Interview	Language achievement
Results: High-achieving students used language learning strategies more variously and frequently than low-achieving students.				
7) Politzer and McGroarty (1985)	37 adult nonnative-speaking English students learning English as a second language	- Overall strategy use - Strategies used by good and poor language learners	- Interview - Questionnaire	1. Language proficiency 2. Students' cultural background 3. Field of specialization
Results: - Difference language learning strategies were used by students with different language proficiency levels - Asian students used fewer "good" language learner strategies than did Hispanic students. - A difference of language learning strategies were used by students from different fields of specification				
8) Ehrman and Oxford (1989)	78 mixed-level participants: EFL students, language instructors, and professional language trainers	Overall strategy use	Questionnaire	1. Gender 2. Career choice 3. Cognitive style 4. Personalities
Results: The significant relations were found between investigated factors and success in language learning strategy use and language achievement, and career choice had a major effect on reported language learning strategy use.				

Table 2.2 (contd): Research on Language Learning Strategies Conducted in Countries Other than Thailand

Researcher	Participant	Study Focus	Method of Data Collection	Investigated Variable
9) Oxford and Nyikos (1989)	1,200 inexperienced language learners: tertiary students studying foreign languages, almost all are native English speakers	Overall strategy use	Questionnaire	1. Gender 2. Major 3. Years of study 4. Course status 5. Motivation
Results: Motivation was the single most powerful effect, and sex has a profound influence, and that all other variables e.g. major, years of study, and course status had 1) some interactions among these variables and 2) significant effects on the reported use of strategies.				
10) Oxford and Ehrman (1995)	520 highly educated participants (adult): almost all are native English speakers	Overall strategy use	Questionnaire	1. Language proficiency 2. Teacher perceptions 3. Gender 4. Aptitude 5. Learning style 6. Personality type 7. Ego boundaries 8. Motivation 9. Anxiety
Results: - The strong relationship was found between language learning strategy use and persistence, motivation, and the ability to plan. - Cognitive strategies were correlated with a wide range of affective and motivational variables.				
11) MacIntyre and Noels (1996)	Non native-speaking English students learning foreign languages in a tertiary level	Overall strategy use	Questionnaire	1. Language proficiency 2. Motivation 3. Language anxiety
Results: On average, the integrative motivation and language anxiety play a role in overall strategy use and the use of certain types of strategies, as well as the ratings of knowledge, effectiveness, difficulty, and anxiety caused by strategy use.				

Table 2.2 (contd): Research on Language Learning Strategies Conducted in Countries Other than Thailand

Researcher	Participant	Study Focus	Method of Data Collection	Investigated Variable
12) Wang (1996)	20 EFL adult learners in China	- Overall strategy use - Strategies used by good and poor learners	- Questionnaires - Interview	Learners' beliefs about language learning
Results:				
- Subjects hold positive as well as negative beliefs about L2 learning. - Subjects made fairly frequent use of the learning strategies. However, they seemed to underuse certain strategies that could lead to opportunities for naturalistic practice and use of the language. - More successful learners seemed to hold positive beliefs about learning English whereas more unsuccessful learners seemed to hold misconceptions or negative beliefs.				
13) Mochizuki (1999)	157 EFL university students in Japan	Overall strategy use	Questionnaire	1. Fields of study 2. Gender
Results:				
- Japanese university students use compensation strategies the most often and affective ones the least. - The more proficient students use cognitive and metacognitive strategies more frequently than the less proficient students. - The factors which influence the choice of strategies are major, motivation, enjoyment of English learning and gender.				
14) Halbach (2000)	12 diaries selected from 73 tertiary students learning English in Spain	- Overall strategy use - Strategies used by successful and less successful students	Diary	Learning performance
Results:				
Subjects who got higher marks during their final term exam reported using strategies more frequently than did the less successful students.				

Table 2.2 (contd): Research on Language Learning Strategies Conducted in Countries Other than Thailand

Researcher	Participant	Study Focus	Method of Data Collection	Investigated Variable
15) Wharton (2000)	678 ESL tertiary students in Singapore	Overall strategy use	Questionnaire	1. Teaching methodologies 2. FL/SL settings 3. Previous FL/SL experiences 4. Motivation 5. Gender 6. Proficiency self-rating
Results: A significance of motivation, self-rated proficiency, and language studied, with motivation significantly interacting with language studied.				
16) Carson and Longhini (2002)	One Spanish instructor teaching English	Second language learning styles and strategies of the diarist/researchers	Diary	Second language learning styles and strategies of the diarist/researchers
Results: - Learners often consciously attempt to utilize in communicative interactions explicit knowledge that they have attained from their (concurrent classroom) learning experiences. - Naturalistic learning contexts influence the types and frequency of learning strategies that a learner employs.				
17) Peacock and Ho (2003)	1,006 ESL students in Hong Kong	Overall strategy use	- Questionnaires - Interviews	1. Disciplines 2. Gender 3. Age
Results: - A positive association was found between 27 strategies and proficiency. - English students used the most strategies, and computing the fewest. - Different deficiencies in strategy use were found in different disciplines. - Differences were also found by age and by gender: older students were strong in affective and social areas, and females in the use of memory and metacognitive strategies.				

Table 2.2 (contd): Research on Language Learning Strategies Conducted in Countries Other than Thailand

Researcher	Participant	Study Focus	Method of Data Collection	Investigated Variable
18) Su (2005)	419 Taiwanese vocational college students majoring in Applied Foreign Languages	Learning strategy	Questionnaires	self-perceived English proficiency levels
Results: Significant differences exist between the students' self-perceived English proficiency level and the use of language learning strategies as a whole and in all six categories of language learning strategies.				
19) Yang (2007)	461 junior college students in Taiwan	Overall strategy use	Questionnaires	1. Ethnicity 2. English Proficiency
Results: - Ethnicity did play a significant role in the selection of language learning strategies. - Language proficiency influenced learners' use of language learning strategies.				

An overall picture of related literature and research on language learning strategies carried out in countries other than Thailand continually conducted from the mid 1970s towards the early of 2000s, as shown in Table 2.2 above, appears to indicate that there are a variety of variables have been found to be related to students' language learning strategy use, which the present investigation attempts to study, i.e. genders, fields of study, and language learning experiences. However, no empirical research in the field of language learning strategies has been carried out to investigate students' use of language learning strategies in relation to another variable of the present study; that is, types of academic programs.

2.7 A Review of Previous Studies on Language Learning Strategies Conducted in the Thai Context

Like the other language researchers in America and Asia, researchers in Thailand have been focusing their interests on language learning strategies. Studies on language learning strategies in Thailand focus heavily on language learning strategies used by successful and unsuccessful language learners with reference to academic success (e.g. Sarawit 1986, Dhanarattigannon 1990, Torut 1994, Lappayawichit 1998, Ounwattana 2000, and Kaotsombut 2003). Table 2.3 below outlines the research conducted with Thai students.

Table 2.3: Research on Language Learning Strategies Conducted with Thai Students

Researcher	Participant	Study Focus	Methodology	Investigated Variable
1) Sarawit (1986)	31 university students	Language learning behaviours	Questionnaire	English proficiency
Results: The participants did not consistently use their language learning strategies, which were identified in the study as behaviours of successful second language learners.				
2) Dhanarattignanon (1990)	150 secondary students	Vocabulary and overall strategy uses by good and poor learners	Questionnaire	English proficiency
Results: High English achievement students used language learning strategies more frequently than low English achievement ones.				
3) Torut (1994)	611 university students	Strategy use by good and poor learners	Questionnaire	- Study disciplines - English proficiency
Results: - There were differences in the use of language learning strategies related to different learning disciplines. - The use of language learning strategies was affected by English language ability.				

Table 2.3 (contd): Research on Language Learning Strategies Conducted with Thai Students

Researcher	Participant	Study Focus	Methodology	Investigated Variable
4) Lappayawichit (1998)	140 university students	Strategy use by good and poor learners	Questionnaire	English proficiency
Results: High English achievement students used language learning strategies more frequently than low English achievement ones.				
5) Intaraprasert (2000)	570 university students	Overall strategy use by good and poor learners	- Interview - Questionnaire	- English proficiency - Gender - Class size - Type of institution - Location of institution
Results: - Thai engineering students, on the whole, used medium frequency of strategy use. - The frequency of students' overall use of strategies varied significantly in terms of types of institution, and language proficiency levels.				
6) Ounwattana (2000)	186 university students	Speaking and writing strategies	Questionnaire	Speaking /writing proficiency
Results: A significant relationship found in her participants' English speaking and writing abilities.				
7) Intaraprasert (2003)	488 university students	Overall strategy use	Questionnaire	- Gender - Field of study - English learning experience - English proficiency
Results: - These language learners, on the whole, reported medium frequency of use of out-of-class language learning strategies. - The frequency of students' overall reported use of individual out-of-class language learning strategies varied significantly in terms of perceptions of English language ability levels.				
8) Kaotsombut (2003)	39 university students	Strategy use by good and poor learners	- Questionnaire - Interviews	English proficiency
Results: The participants in this study, on the whole, agreed that they used all six different types of language learning strategies according to Oxford's (1990) classification.				

An early study on language learning strategies in Thailand by Sarawit (1986), who carried out a study to investigate language behaviours used by English major students at Srinakharinwirot University, Phitsanulok with reference to their success in speaking, reading and writing skills. To collect the data, the researcher adopted the Behaviour Questionnaire constructed by Politzer and Mc Groarty (1985). This 51-item questionnaire consists of three parts: classroom behaviours; learning behaviours during individual study; and interaction with others outside the classroom. The questionnaires were administered with thirty one students studying in the fourth year English major in the B.A. program. The results of this on-going study showed that the participants did not consistently use their language learning strategies, which were identified in the study as behaviours of successful second language learners. No findings regarding the relationship between language learning behaviours and English achievement in speaking, reading, and writing were reported.

Afterwards, Dhanarattigannon (1990) employed the same research instrument to investigate the English learning strategies employed by 145 first year students in the academic year 1988-1989. Quantitative data were gathered by a learning strategy questionnaire (based on Politzer and McGroarty, 1985). Of the target population, 105 first year students representing 72.4% of 145 – 55 from the successful English student groups, and 50 from the unsuccessful English student groups. Her major findings reported that high English achievement students used language learning strategies more frequently than low English achievement ones.

Another quantitative study was carried out by Torut (1994) to examine language learning strategies used by 611 undergraduate students. Cluster random sampling was administered in this study. The participants, therefore, came from three

learning disciplines: Humanities; Sciences and Technology; and Social Sciences. Data were collected through two research instruments: 1) a cloze test designed by the researcher to measure the participants' English proficiency and place them at three levels of English proficiency, namely, high, mid and low; and 2) a learning strategy questionnaire (the Strategy Inventory for Language Learning, SILL, developed by Oxford, 1990) distributed to collect data concerning the frequency of their use of language learning strategies. The result indicated that there were differences in the use of language learning strategies related to different learning disciplines. Besides, the use of language learning strategies was affected by English language ability.

In the same view, Lappayawichit (1998) adopted Oxford's 80-item Strategy Inventory for Language Learning (SILL) to conduct a similar type of study, i.e., language learning strategies used by successful and unsuccessful students, but with different groups of participants. The data revealed likely the same as Dhanarattigannon (1990). That is, the successful language learners used language learning strategies more frequently than the unsuccessful ones.

In 2000, Ounwattana further studied language learning strategies used by successful and unsuccessful students. The study mainly focused on the relationships between English productive skills; i.e., language speaking and writing abilities, and the choice of language learning strategies. In this study, two research instruments were employed to collect the data of 186 undergraduate students majoring in Accounting at the certificate of vocational education level, i.e. SILL (Oxford, 1990) and the English language speaking and writing tests constructed by the researcher. With her quantitative data, a significant relationship was found in her participants' English speaking and writing abilities.

In a more recent study, Kaotsombut's (2003) used both quantitative and qualitative data collection methods and analyses to investigate a similar issue as those of Dhanarattigannon 1990, Torut 1994, Lappayawichit 1998, and Ounwattana 2000. Thirty- nine graduate students from two different majors (Microbiology and Biology) participated in this study. These participants were first required to take the Quick Placement Test Version II developed by Oxford University (2001). The results were later used to divide the participants into two groups: high English language ability learners and low English language ability learners. SILL (Oxford, 1990) was then distributed to these two groups of language learners. After returning the questionnaires, these learners were requested to participate in face-to-face interviews with the researcher. The researcher reported that the participants in this study, on the whole, agreed that they used all six different types of language learning strategies according to Oxford's (1990) classification including compensation, metacognitive, cognitive, social, affective, and memory strategies, respectively.

Under the research reviewed above, Intaraprasert's (2000) study aimed to clarify the relationships between factors (English language ability levels, gender, students' 'perceived' class size, type of institution, and location of institution) and language learners' use of language learning strategies. Two main strategy categories, i.e. classroom-related, and classroom independent language learning strategies were examined. To conduct his study, he employed both qualitative and quantitative data collection methods: student oral interview and the strategy questionnaire. He designed his own questionnaire and distributed the questionnaires to 570 engineering students at three different types of institutions, i.e. state-run university, private-run university, and then Rajamangala Institute of Technology – now Rajamangala

University of Technology. The findings showed that Thai engineering students, on the whole, reported medium frequency of strategy use. They reported higher frequency of use of classroom-related strategies than those of classroom-independent strategies. The results of data analysis also demonstrated that frequency of students' overall reported use of strategies varied significantly with reference to type of institution and language proficiency levels.

Three years later, Intaraprasert (2003) conducted a quantitative study to look into the relationships between factors (English language ability levels, gender, field of study, and English language learning experiences) and language learners' use of out-of-class language learning strategies. To collect the data, he employed his own questionnaire and distributed the questionnaires to 488 students undertaking English for Science and Technology (EST) courses. These participants came from various fields of studies including Engineering (49.8%); Agricultural Technology (10.5%); Public Health (16.4%); and Information Technology (23.4%). Of these, 51% were male and 49% were female. The findings of the research showed that these language learners, on the whole, reported medium frequency of use of out-of-class language learning strategies. The results of the data analysis also demonstrated that frequency of overall use of individual out-of-class language learning strategies varied significantly with reference to students' perceptions of English language ability levels.

It is evident that a certain series of variables focused on in most studies of language learning strategies conducted in the Thai setting are language learning strategies used by successful and unsuccessful tertiary-level students. Language learning outcomes (language proficiency or language achievement) have been

exclusively taken by previous Thai researchers. These studies were largely product oriented, designed to compare levels of language proficiency or language achievement.

The review of those studies provides the research empirical evidence in the field of language learning strategies to remain that there is a dearth of knowledge about the relationships between learners' use of language learning strategies and any factors that determine those strategies, as stated in Stern (1983), Cohen (1998). The study focusing on the relationships between learners' uses of language learning strategies and any other related factors is still needed to be conducted.

2.8 A Conceptual Framework for Investigating Language Learning Strategies

The present study is conducted to identify what language learning strategies Thai English as a foreign language (EFL) learners at a tertiary level employ in learning English and to clarify how certain factors (gender, fields of study, language learning experiences, and types of academic programs) influence learners to use such learning strategies, as well as how these then influence learning outcomes in terms of the level of language proficiency. Such an issue necessarily needs to be addressed because, as Stern (1983) contends, language learners' language learning strategy use are largely affected by different factors including aptitude and motivation, learners' individual characteristics, a social context, and teachers' characteristics. In his own words, Stern emphasizes an interwoven relationship between language learners' language learning strategies and different factors.

Concurring with Stern, Cohen (1998) stresses there is an insufficient number of study that looks into a relationship between language learners' language learning strategies and factors that determine what learning strategies language learners use. Citing Oxford and Cohen (1992), Cohen maintains,

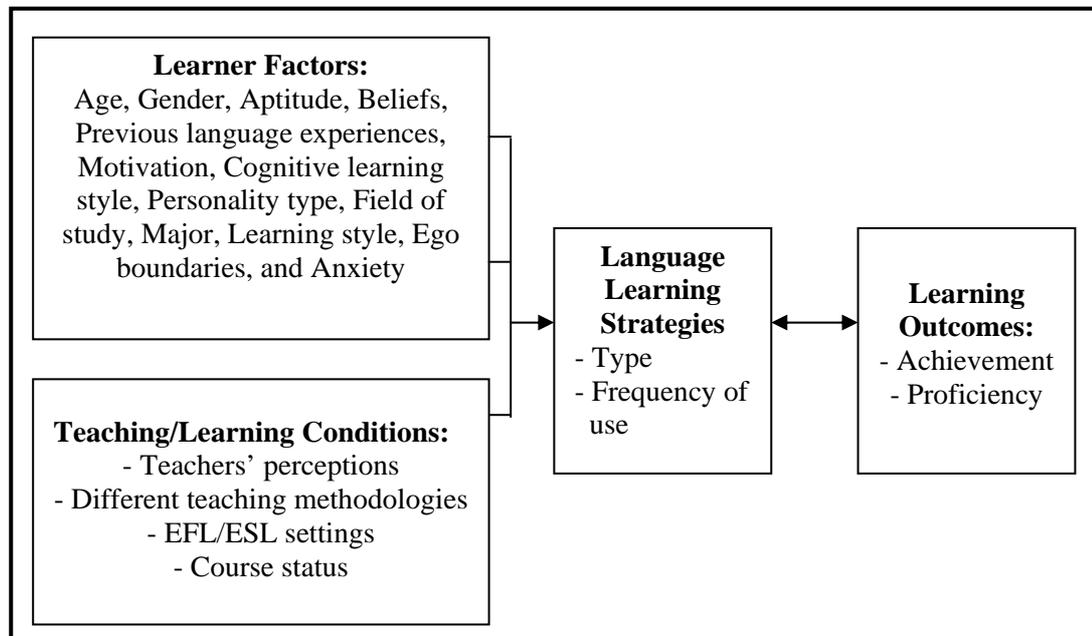
“Factors such as learning styles, world knowledge and beliefs, attitudes toward the language and motivation to learn it, anxiety, sex, and ethnicity have received lesser emphasis...”
(Oxford and Cohen, 1992: 17)

Additionally, Ellis (1994) echoes Stern (1983) and Cohen (1998) that there is

“Less attention has been paid to the role of social factors such as socioeconomic group, sex, and ethnicity on the use of learning strategies.” (p. 545)

Through a review of related literature and past research work, a theoretical framework for the present study has been developed. Among the findings of research on language learning strategies, a tendency for overall frequency of strategy use to be associated with higher levels of language proficiency has emerged in a variety of learning contexts, regardless of how researchers assessed strategy use (e.g. via questionnaire, interviews or think-aloud protocols) or how they measured language proficiency (e.g. by performance on language tests, teacher ratings, student self-ratings, number of years of study, or enrolment at different course levels). Figure 2.1 demonstrates the theoretical framework based on empirical research.

Figure 2.1 : Theoretical Framework Based on Empirical Research



The theoretical framework, which is based on the related literature on language learning strategy research, demonstrates that types of language learning strategies and learners' frequency of language learning strategy use have been hypothesized to be influenced with a single-directional relationship by two main sets of variables: 1) learner factors (e.g. age, gender, aptitude, beliefs, previous language experiences, motivation, cognitive learning style, personality type, field of study, major, learning style, ego boundaries, and anxiety); and 2) teaching and learning conditions (e.g. teacher perceptions; different teaching methodologies, EFL/ESL settings, and course status). With regards to learning outcomes (levels of language achievement and proficiency), the relationship between learners' language learning strategy use and this set of variables is a bi-directional influence between language learning strategies and language learning outcomes or learning performance. Perhaps the proficiency/strategy use connection is that the typical finding on an association

between the two is not proof of cause and effect (see e.g. Skehan, 1989: 97). More active use of strategies may indeed be responsible for raising language proficiency levels (an assumption that underlines efforts at strategy training), but it may also be that higher proficiency permits greater or more effective use of strategies, or that both strategy use and proficiency are influenced by some other underlying factors.

To clarify the relationships between factors (e.g., learners' individual characteristics, the educational context, motivation, and attitudes, among many others) and language learners' uses of language learning strategies, the present study will borrow theory concerning language learning strategies (developed by Ellis [1994]). Following the model of L2 acquisition of Ellis (1994), the prime focus of the present study, therefore, aims at examining variation in the use of overall strategy use, as well as individual strategy and strategy categories, and by looking at patterns of variation by gender, fields of study, language learning experiences (in term of more or less language learning experiences), and types of academic programs. This focus is drawn to the following diagram (Figure 2.2) proposed as the framework of the study which is adapted from the model of L2 acquisition of Ellis (1994), see Figure 2.3.

Figure 2.2 : Factors Relating to Choice of Language Learning Strategies of Freshmen Learning English in the Public Universities in Thailand

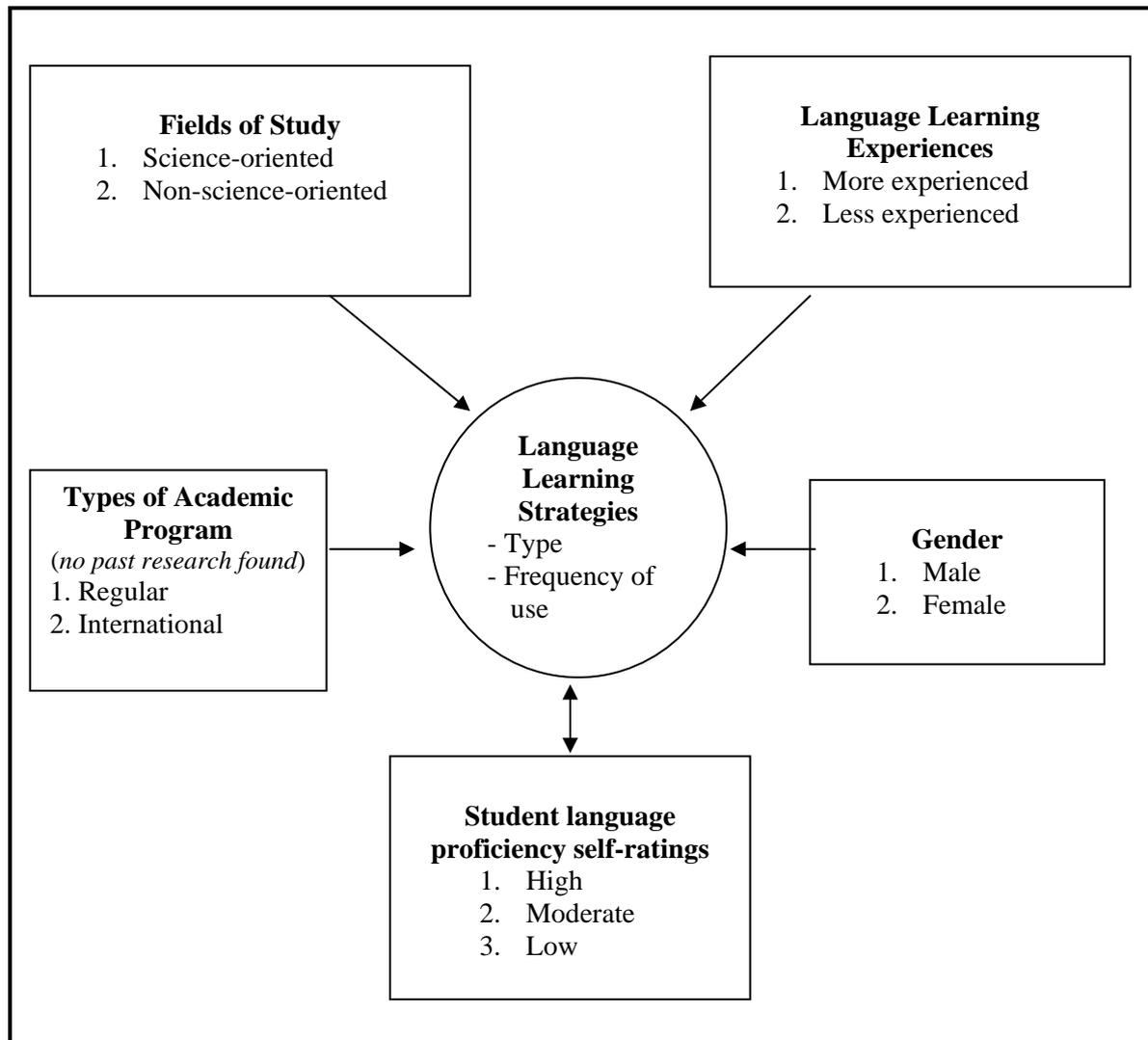
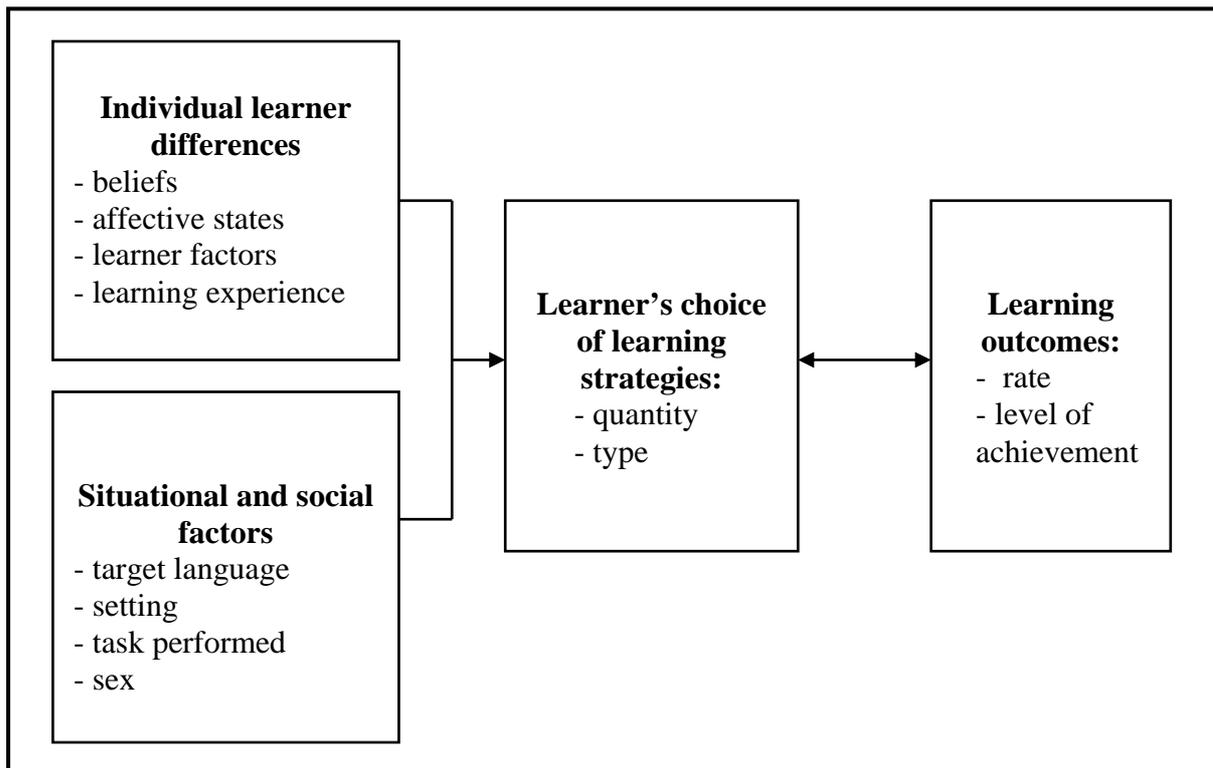


Figure 2.3: Ellis's Model of The Relationship between Individual Learner Differences, Situational and Social Factors, Learning Strategies, and Learning Outcomes



(Ellis, 1994: 530)

In Ellis's (1994) framework, there are four sets of variables: individual learner differences; situational and social factors; learner strategies; and language learning outcomes. Ellis's first set of variables consists of beliefs about language learning, affective states, and general factors. All of those four subsets of individual learner difference factors are taken into consideration to explain learners' different beliefs about how an L2 is best learnt, to understand why and how their anxiety arising out of poor performance, communication apprehension, tests, and fear of negative evaluation are likely to have a significant impact on learners' ability to learn L2. The general

factors relating to learners' ability and desire to learn and the way they choose to go about learning in this first set of variables also include age, language aptitude, learning styles, motivation, and personality. The second set of variables is composed of four factors: target language being learnt; the setting in which learning takes place; the tasks that the learner; and gender. Learning strategies are the third set of variables, which are determined by those individual learner difference factors; i.e., beliefs, affective state, general factors, and previous learning experiences, together with various situational factors (the target language being studied, whether the setting is formal or informal, the nature of the instruction, the specific tasks learners are asked to perform), and a social nature (gender) also shown to influence language learning strategy use. The study of learning strategies holds considerable promise, both for language pedagogy and for explaining individual differences in L2 learning. Consequently, the first three sets of variables including individual learner differences, situational and social factors, and learner strategies then have an influence on the last factor, namely, language learning outcomes in terms of two aspects of learning: the rate of acquisition and the ultimate level of achievement. Likewise, the success that learners experience and their level of L2 proficiency they have can affect choice of learning strategies.

Based on the theoretical framework for the present investigation, the student's choice of language learning strategies (types of strategies and frequency of use) will be determined by gender of students (males and females), types of academic program (regular and international), fields of study (science-oriented field and non-science-oriented field), language learning experiences (more and less language learning experiences), and the levels of language proficiency of students (high, moderate, and

low). In Ellis's (1994) model, it demonstrates that a set of two main factors: individual learner differences, and situational and social factors manipulate learner's choice of learning strategies. These two factors then influence learning outcomes in terms of the rate of second language acquisition and the level of proficiency. Likewise, the success that learners experience and their level of L2 proficiency they have can affect choice of learning strategies.

In interpreting the proficiency/ strategy use connection, it cannot come to the conclusion that a simple count of strategies used is always associated with successful language outcomes. This is illustrated by Vann and Abraham (1990) in a case study of two unsuccessful adult learners in an intensive ESL program. The two learners, whose language learning success was measured by a standardized test, were found to be using a similar number of strategies, and the same strategies, as successful learners in completing a series of classroom tasks. However, the unsuccessful learners appeared to have problems was in the metacognitive domain, i.e. in applying the strategies appropriately to the given tasks. This is consistent with the study of Chamot (1984) in that language proficiency of learners influences their choice of language learning strategies and greater use of strategies might lead some students to high levels of performance. As MacIntyre (1994) stresses, the implications of the research findings must be considered with cautions. This might be interpreted to mean that either proficiency influences the choice of strategies, or that strategy choice is simply a sign of language proficiency level.

For an examination of foreign language learners' language learning strategies in the present study, it is definitely impossible to examine all aspects of second language learning factors as identified above in the present investigation. However, as

Ellis (1994) emphasizes, little was said about the mechanisms that establish the relationship between the four sets of variables: individual learner differences; situational and social factors; learner strategies; and language learning outcomes. Given the necessity to uncover that inclusive relationship, the present study, therefore, is carried out to explore the individual learner-related variables together with the situational and social variables of Thai EFL learners in order to better comprehend the relationship between these variables and how they contribute to Thai public university students' choice in employing their language learning strategies in acquiring English. The investigated variables are chosen from those four sets of variables illustrated in Ellis's (1994) model including 1) gender, 2) fields of study, 3) previous language learning experiences (dealing with more and less learning experiences), 4) types of academic programs, and 5) language proficiency levels.

As seen in the theoretical framework, the academic program-related factor has not been found to be learner factors in any past research. In addition, this factor is not added in Ellis's (1994) model of L2 acquisition as a determinant on learners' choice of learning strategies. In the researcher's opinion, this factor should be taken into consideration to examine whether it is related to learners' choice of such learning strategies. This is because the academic program could be counted as the real situation of language learning in the classroom context as nowadays many public universities in Thailand such as Mae Fah Luang University, Mahidol University, Naresuan University among many others offer both types of academic programs: regular and international. It may be possible to assume that the differences of social contexts and learning conditions between those two academic programs might have an influence on learners' choice of language learning strategy use to certain extent. The research

focus, therefore, should not ignore this real situation of language learning context in Thailand. As Stern (1983) suggests, research on language learning strategies should be conducted in different social contexts, under different language learning conditions, at different age, and maturity level and at different levels of language proficiency.

Following is a discussion of basic assumptions about the relationships between learner's language learning strategy use and the five investigated variables based upon the literature review and other researchers' opinions.

2.8.1 Students' Use of Language Learning Strategies and their Gender

Studies which have examined the relationship between gender and students' use of language learning strategies have come to mixed conclusions. The studies by Politzer (1983), Ehrman and Oxford (1990), and Wharton (2000) came to the conclusion that gender was not found to have much relationship to students' choices of strategy use. While, Ehrman and Oxford (1989), Oxford and Nyikos (1989), Tercanlioglu (2004), and Ok (2005) discovered distinct gender differences in strategy use.

Ehrman and Oxford (1989) focus on the effects of this psychology type in their study. They conducted quantitative research to clarify a relationship between language learners' use of language learning strategies and gender. Seventy-eight subjects were recruited to participate in the study and were divided into three groups: 1) 30 students from the Foreign Service Institute (FSI) undertaking courses in Japanese, Thai, and Turkish; 2) 26 language instructors teaching Japanese, Thai, Turkish, Indonesian, Italian, and Hungarian at FSI; and 3) 22 professional language

trainers with master degrees in linguistics from the FSI School of Language Studies and the Centre for Applied Linguistics (CAL) and four were university professors of linguistics and related subjects. To collect data regarding the relationship between gender and learners' language learning strategy use for their study, Ehrman and Oxford (1989) requested 6 participants from the first group to voluntarily complete Oxford's Strategy Inventory for Language Learning (SILL) questionnaire. The findings of this study indicated that female language learners reported using four language learning strategies in four categories significantly more frequently than their male counterparts. The four categories include general study strategies, authentic language use, strategies for searching for and communicating meaning, and self-management strategies. Besides, males were found to use more learning strategies to improve their English skills than did females.

In the same year, Oxford and Nyikos, (1989) conducted more or less the same research as that of Ehrman and Oxford (1989). The influences of variables on choice of language learning strategies were acknowledged in their study. To collect the data, those two researchers also used Oxford's (1990) Strategy Inventory for Language Learning (SILL) questionnaire. The sample of this study was 1,200 relatively inexperienced language learners. The numeric results proved that gender had a profound influence, i.e. female students reported using three out of five learning strategy factors significantly more frequently than did males. The three strategy factors were formal rule-based practice strategies, general study strategies, and conversational/input elicitation strategies.

More recently, Tercanlioglu (2004) carried out another quantitative study to examine gender differences in language learning strategies used by EFL learners in a

Turkish University. One hundred and eighty four university students participating in the study were asked to complete the Strategy Inventory for Language Learning (SILL), which was the only one research instrument used for data collection in this study. The results of the investigation demonstrated significant differences, favouring males, in students' language learning strategy use with male students using language learning strategies significantly more frequently than their female counterparts.

Ok (2005) also investigated Korean junior high school students' use of language learning strategies, but with relation to various variables including school year, gender, and grammar proficiency. The participants in this study included 163 boys and 162 girls learning English as a foreign language at junior high schools in Pusan, Korea. Language learning strategy use was assessed through Korean translation of the Strategy Inventory for Language Learning (SILL) (Oxford, 1990). The major findings showed that girls showed more frequent use of all six language learning strategy categories than boys. It also revealed that the students' gender had a significant relationship on their use of language learning strategies.

Based on the evidence provided by the studies mentioned earlier, it might be concluded that, perhaps, although men and women do not always demonstrate differences in language learning strategy use, women tend to use more language learning strategies than men. The purpose of the study is to examine whether or not gender differences will associate with some differences in students' language learning strategy use.

2.8.2 Students' Use of Language Learning Strategies and Types of Academic Programs

Academic programs for undergraduate level in the formal system of Thailand's education recently offered by the public universities in Thailand can be classified into two types: regular and international. The different learning conditions and environments of these two programs in terms of medium of instruction might be a basic distinction relating to the choice of students' language learning strategy use. No past empirical study has been carried out initially to examine the relationship between this variable and students' use of language learning strategies. The present study, therefore, aims at exploring such a relationship to see whether or not the difference of types of academic programs in which students are studying will influence their use of language learning strategies.

2.8.3 Students' Use of Language Learning Strategies and their Fields of Study

Investigating fields of study as a factor in language learning strategy use has not been commonly found. The study of Oxford and Nyikos (1989), for example, is a study conducted to discover a difference of language learning strategies used by students from different fields of study (in term of major of study). However, it failed to discover any evidence showing any influence of this variable on learners' choice of language learning strategy use. Quantitative data of 200 relatively inexperienced language learners' language learning strategy use were collected through Oxford's (1990) the Strategy Inventory for Language Learning (SILL) questionnaire. The results showed that major of study had some interactions, but insignificantly, among other certain variables including motivation, gender, years of study, and course status.

Similar to the findings reported in Intaraprasert (2003), field of study was found to be slightly related to students' choices of strategy use. 488 students majoring in Engineering, Agricultural Technology, Public Health, and Information Technology were asked to respond the researcher-generated questionnaire, which was used as the main instrument for the data collection.

More presently, Peacock and Ho (2003) expand this focal point of study by investigating the use of 50 second language learning strategies of 1,006 English for Academic Purposes (EAP) students across eight disciplines – building, business, computing, engineering, English, math, primary education, and science – in a university in Hong Kong. Their study emphasizes a comparison of strategy use across those disciplines and also an investigation of the relationships among strategy use, L2 proficiency, age and gender. Multi data collection methods were employed including Oxford's SILL and in-depth interviews with 48 students. The results of both quantitative and qualitative data reveal that a positive association was found between 27 strategies and proficiency. Different disciplines in strategy use were found with referent to gender and age of students; i.e. English students used the most strategies, while computing the fewest, old students were strong in affective and social areas, and females in the use of memory and metacognitive strategies.

In the present investigation, the researcher carries out a study to investigate whether or not the difference of fields of study have a relationship with students' use of language learning strategies. Fields of study in this study are specifically classified into two main groups: science-oriented and non-science-oriented.

2.8.4 Students' Use of Language Learning Strategies and their Language Learning Experiences

A number of researchers carried out research work regarding the effects of previous language learning experiences, e.g. Oxford and Nyikos (1989) and Wharton (2000). Unfortunately, previous language learning experiences were found to have little relationship to students' use of language learning strategies.

In Oxford and Nyikos's (1989) study, year of study was an investigated variable as previous language learning experience, these researchers attempted to investigate the relationship between language learning strategies and their previous language learning experiences. The influence of years of study on choice of language learning strategies was not acknowledged in their study. Those two researchers used Oxford's (1990) SILL questionnaire to collect the data. The sample of this study was 1,200 relatively inexperienced language learners. Numeric results demonstrated that years of study had some interactions, but insignificantly, among other certain variables including motivation, gender, major of study, and course status.

More recently, a similar focus is also expanded by Wharton (2000). Wharton gave some valuable insights into the relationships between certain factors correlated with language learning strategies used by his participants in Singapore. The factors in this quantitative study included different teaching methodologies, FL/SL settings, previous language learning experiences, motivation, gender, and proficiency self-rating. The researcher distributed Oxford's Strategy Inventory for Language Learning (SILL) questionnaire together with a uniform set of instructions to 678 ESL university students in 13 French classes and 26 Japanese classes. A tabulation of the

quantitative data collected from 678 ESL university students did not show a strong relationship between previous language learning experiences and overall strategy use.

Consequently, the belief that previous language learning experiences would affect students' use of language learning strategies is far from unified. The present study, however, aims to examine whether or not the difference of previous language learning experiences (in terms of more or less language learning experiences) manipulate students' use of language learning strategies.

2.8.5 Students' Use of Language Learning Strategies and Language Proficiency

Among the findings of research on language learning strategies, a tendency for overall frequency of strategy use to be associated with higher levels of language proficiency has emerged in a variety of learning contexts, regardless of how researchers assessed strategy use (e.g. via questionnaire, interviews or think-aloud protocols) or how they measured language proficiency (e.g. by performance on language tests, teacher ratings, student self-ratings, number of years of study, or enrolment at different course levels).

Researchers in the field of language learning strategy studies have adopted various methods to measure language learning strategy use and language proficiency such as entrance and placement examinations (e.g. Sheorey, 1999), language achievement and proficiency tests (e.g. Torut, 1994; Intaraprasert, 2000), and self-rating of language proficiency (e.g. Oxford and Nyikos, 1989; Green and Oxford, 1995; Wharton, 2000).

In this present study, with an attempt to obtain not only how Thai public university students' language learning strategy use relate to their language proficiency

levels, but also how they perceive their own English proficiency levels needs to be taken into consideration. Thus, self-perception of proficiency or self-rating English proficiency level is selectively used for the evaluation basis on language proficiency. Based on the review of literature, the findings of recent research revealed that significant differences exist between the students' self-perceived English proficiency level and the use of language learning strategies as a whole. Students who report a higher self-perceived English proficiency level use language learning strategies more frequently than those who have a lower self-perceived English proficiency level. Researchers indicate a positive linear relationship between the self-perceived proficiency, and the ranges and frequency of language learning strategy use (Oxford, and Nyikos, 1989; Green and Oxford, 1995; Wharton, 2000). In addition, researchers also report a casual ascending spiral relationship between levels of proficiency and language learning strategy use (MacIntyre, 1994; Green and Oxford, 1995; Su, 2005). In conclusion, the relationship between proficiency level and strategy use is defined, and strategies could be both the causes and the outcomes of improved language proficiency. In interpreting this proficiency/strategy use connection, however, some caution needs to be exercised.

In the present investigation, the researcher carries out a study investigating whether or not the difference of language proficiency have a relationship with students' use of language learning strategies. Language proficiency levels in this study are self-perceived English proficiency levels or self-rating of English proficiency levels perceived and rated by language learners themselves. The English proficiency levels are specifically classified into three main groups: high; medium; and low.

In conclusion, based on the analysis of research work on language learning strategies in a chronological order starting from the mid 1970s towards the early of 2000s, it can be summarized other aspects of variables relating to learners' use of strategies are additionally presented as follows.

1. Characteristics of Participants

The participants of the reviewed research can be classified according to their characteristics as:

- English native-speakers learning a foreign language
- English non-native speakers learning English as a second language
- English non-native speakers learning English as a foreign language

The majority of these research on language learning strategies to date has been undertaken in language learning settings in the United States either with English native-speakers learning foreign languages: French, German, Italian, Russian, English, Polish, Japanese, or Swedish (e.g. Naiman et al., 1975; Bialystok and Fröhlich, 1978; and Bialystok 1981) or with groups of mixed nationalities studying English as a second language in the United States of America (e.g. Chesterfield and Chesterfield, 1985; O'Malley et al., 1985a; Politzer and McGroarty, 1985; Ehrman and Oxford, 1989,; and Oxford and Ehrman 1995). The other works were carried out with English non-native speakers learning English as a foreign language, e.g. Chinese (e.g. Su, 1995; Wang, 1996; Jie, 2001; Linhua, 2001; and Gan, Humphreys, and Hamp-Lyons, 2004), Hong Kong (e.g. Bremner, 1999; Peacock and Ho, 2003), Korean (e.g. Ok, 2005), Spanish (e.g. Carson and Longhini, 2002), Taiwanese (e.g. Yang, 1999; and Su, 2005), Singaporean (e.g. Wharton, 2000), Thai (e.g. Sarawit,

1986; Lappayawichit, 1998; Dhanarattignanon, 1990; Torut, 1994; Intaraprasert, 2000; 2003; and Kaotsombut, 2003).

It seems obvious that most of these research works were carried out in the United States of America, while the smaller amount of research works were in the other parts of the world like Asia, or Europe. The present investigation, therefore, is carried out to discover language learning strategies used by English non-native speakers learning English as a foreign language outside the United States of America. This would lead to have better understanding regarding language learning strategy use in different contexts across other cultures and countries.

2. Focal Points of Study

The research focal point of study can be classified as:

- An investigation of the overall strategy use
- An investigation of the strategy use of successful or good language learners
- An investigation of the strategy use of unsuccessful or poor language learners
- An investigation of other related variables with reference to language learning strategies

Of reviewed research works, more than half of them has been sought out to investigate the overall strategy use, and the strategy use of unsuccessful/poor or successful/good language learners. Fewer researchers paid attention to other focal points of study, i.e. investigating the relationships between learners' language learning strategy use and other related variables such as independent and dependent variables in classroom (see Bialystok and Fröhlich, 1978), and self-directedness for language learning and English language learning attainment (see Gan, Humphreys, and Hamp-Lyons, 2004).

3. Methods of Data Collection

There have been a variety of data collection methods employed to investigate language learning strategy use with regard to language learning outcomes or language learning performance. Each method of language learning strategy use will be discussed later in Chapter 3. These methods include:

- Self-report questionnaire
- Interview
- Observation
- Diaries
- Think-aloud protocols

It appears that the majority of the researchers widely and continually used strategy questionnaires to collect data. The less frequently used methods of data collection were interview, observation, diaries, and think-aloud protocols.

- self-report questionnaires
(see. Sarawit 1986, Bialystok and Fröhlich 1978, Bialystok 1981, Politzer 1983, Ehrman and Oxford 1989, Oxford and Nyikos 1989, Dhanarattignanon 1990, Torut 1994, Lappayawichit 1998, Bremner 1999, Yang 1999, Intaraprasert 2000, Ounwattana 2000, Ji 2001, Linhua 2001, Kaotsombut 2003, Intaraprasert 2003, Peacock and Ho 2003, Tercanlioglu 2004, Ok 2005, and Su 2005)
- interview
(see. Naiman et al. 1975, O'Malley et al. 1985a, Politzer and McGroarty 1985, Wang 1996, Intaraprasert 2000, Kaotsombut 2003, Peacock and Ho 2003, Gan Humphreys and Hamp-Lyons 2004, and Lengkanawati 2004)
- Observation
(see Naiman et al. 1975, Chesterfield and Chesterfield, 1985, and Lengkanawati 2004)
- Diaries
(see Halbach 2000, and Carson and Longhini 2002)

2.9 Summary

Defining, characterizing, and classifying the term “language learning strategies” seem varied. There has been no agreement among ELT (English Language Teaching) researchers and practitioners about the definitions, characteristics, and classifications of language learning strategies.

Amid the welter of varied definitions, the process of establishing definitions for language learning strategies remains no consensus. Language learning strategies in the present study are considered as conscious behaviours or thought processes used in performing learning actions, whether observable (behaviours or techniques) or unobservable (thoughts or mental process), or both, that Thai public university freshmen themselves reported in generating and making use of to enhance their L2 learning.

Regarding language learning strategy classification, language learning strategy classification systems are also variedly proposed. This is because the criteria for classification have derived from researchers’ individual differences; i.e., their personal experiences, their own language learning strategy investigation, or their expansions or reviews of other researchers’ works and theories.

In the review of related literature and research on language learning strategies carried out in other countries and Thailand, it is evident that educational researchers investigated differences in language learning strategies based on a variety of 1) demographic factors dealing with a variety of settings and target populations; 2) research design concerning methods of data collection, and focal points of the investigation; and 3) other related variables such as language proficiency/achievement, gender, motivation, fields/major of study, learners’ beliefs, career interests, different teaching and learning conditions/atmospheres, previous language

learning experiences, independent and dependent variables in classroom, and self-directedness for language learning and English language learning attainment.

In Chapter 3, the primary focus is placed on presenting the conceptual framework of the present investigation. Besides, general principles of research design are discussed in order to be applied to the study, together with the nature of the research design, research methods in language learning strategy studies, and the framework of data collection methods. The chapter concludes with proposing methods of data collection of the present study.

CHAPTER 3

DESIGN AND METHODS IN STRATEGY RESEARCH

3.1 Introduction and Purpose of the Chapter

This section of the proposal comes in three main parts. The first part deals with some general principles of research design which applies to the present investigation. It discusses 1) the nature of the research design; 2) research methods in language learning strategies; and 3) the framework of data collection methods as well as methods used for data generation and data collection for the present investigation. Then sampling and rationales for choice of participants and institutions for the study are discussed. The last part of this section deals with how data collected will be analyzed, interpreted, and reported.

Before looking at the research design of the present study, it is important to consider about the research background in the first place; that is, research purposes and questions. This is because the research purposes and research questions determine the methodology and design of the research (Cohen and Manion, 2002; Robson, 2002).

The current study has been designed to examine:

1. the overall use of language learning strategies that Thai public university freshmen employ; and
2. how the investigated variables including gender, fields of study, language learning experiences, types of academic programs, and levels of language

learning proficiency relate to the self-reported use of language learning strategies, if any.

According to the research purposes mentioned above, it can be said that this study is derived by the postpositive knowledge claims (Creswell, 2003) in which the relationship among variables is one of the key assumptions of the knowledge claim position. In this sense, based on this position, the study focuses on examining the relationship of language learners' learning strategy use, and the certain related factors including 1) gender, 2) fields of study, 3) previous language learning experiences, 4) types of academic programs, and 5) language proficiency levels.

3.2 Research Questions

Based on the research purposes, the research questions are posed to frame the present study in terms of mixed **research questions to explore, describe, and explain the language learning strategies used by public university freshmen learning English as a foreign language in Thailand. The present investigation, therefore, is designed to answer the following specific questions:**

3.2.1 Qualitative research-based question

What are the types of language learning strategies reported to be employed by public university freshmen learning English as a foreign language in Thailand?

3.2.2 Quantitative research-based questions

1. What is the frequency with which these language learning strategies are reported to be used by these students?
2. Do students' choices of language learning strategies vary significantly with their gender? If they do, what are the main patterns of variation?

3. Do students' choices of language learning strategies vary significantly according to the fields of study they are studying? If they do, what are the main patterns of variation?
4. Do students' choices of language learning strategies vary significantly according to the types of academic programs they are studying? If they do, what are the main patterns of variation?
5. Do students' choices of language learning strategies vary significantly according to their previous English learning experiences? If they do, what are the main patterns of variation?
6. Do students' choices of language learning strategies vary significantly according to their levels of language proficiency? If they do, what are the main patterns of variation?

Based on the characteristics of these mixed research questions, they can be linked to Robson's (2002) classification of the purposes of enquiry, which consists of four categories: 1) exploratory; 2) descriptive; 3) explanatory; and 4) emancipatory. Clarifying the above research purposes that the study aims to achieve, and the research questions that frame the study, they can be classified into exploratory, descriptive, and explanatory according Robson's (2002) classification of the purposes of enquiry. The justification is basically based on the kinds of research questions governed by the research purposes, that is, 1) exploratory with "How..?" kind of question is concerned with discovering insights and understanding about how some situation 'works,' 2) the aim of descriptive with "What...?" is to discover, quantify and describe 'fact' about some group of people or situation, and 3) explanatory with "Why...?" seeks to discover why things happen in the way they do.

According to Robson (2002), the types of research designs can be classified into two research designs:

1. The flexible design is appropriate with the 'how' and 'why' research questions. The events are not required to control over, but mainly focus on current events. They are used for developing detailed, intensive knowledge about single case or of a small number of related cases. There are three traditions of flexible design research: case studies; ethnographic studies; and grounded theory studies. They usually employ interviews and/or observations.
2. The fixed design is appropriate with the 'who, what, where, how many, and how much' research questions. The events are required to control over. Fixed design typically involves the collection of quantitative data. It includes experimental studies, and non-experimental studies; i.e. survey studies. They are used for collecting information in standardized form from groups of people. Experiments and/or questionnaire are obviously used.

Therefore, the research design of the present study would be of flexible and/or fixed design. In other words, the present study would adapt the quantitative and/or qualitative research design to serve the research purposes. The flexible design or so-called qualitative research design (Phase I of data collection) typically requires much less pre-specification and the design evolves, develops, and unfolds as the research proceeds.. In the fixed design or commonly called quantitative research design (Phase II of data collection), , on the contrary, it requires a very substantial amount of pre-

specification about planned conceptual framework identifying what researchers are going to do and how they are going to do it.

3.3 Participant Distribution

Tables 3.1-3.4 present the breakdown of the number of participating students related to each investigated variable in the data collection in order to give a context for the results obtained through the data analysis for the present study. This breakdown has been crosstabulated and chi-square tests were employed to determine whether the participant distribution among the variables was significantly or not.

Table 3.1: Number of Students by Types of Academic Programs in Terms of Gender, Fields of Study, Previous Language Learning Experiences, and Language Proficiency Levels

Types of Academic Programs	Gender		Fields of Study		Language Learning Experiences		Language Proficiency Levels		
	Male	Female	Science	Non-Science	Less	More	Hi	Mo	Lo
Regular (n=857)	265	592	473	384	106	750	16	484	355
International (n= 271)	77	194	12	259	21	249	11	189	69
Total (n = 1,128)*	342	786	485	643	127	999	27	673	424
χ^2 Value	N.S.		$\chi^2 = 216.45$ p <.01		$\chi^2 = 4.35$ p <.05		$\chi^2 = 24.22$ p < .01		

* Note: 6 students did not indicate their types of acadmic programs.

The information in Table 3.1 shows the number of students in each group of the five variables when related to types of academic programs. Of the five variables presented, the chi-square results show that the distribution of the participants varied

significantly within ‘fields of study’, ‘previous language learning experiences’, and ‘language proficiency levels. It can be seen that there are more public university students studying in the regular programs than those studying in the international programs, more non-science-oriented students than science-oriented students, and more English learning experience students than less English learning experience ones. In respect of students’ proficiency levels, there are more ‘moderate’ proficiency students than ‘high’ and ‘low’ proficiency students studying in the Thai public universities. When looking at the number of students and their gender, it appears that the patterns of gender of students are consistent irrespective of types of academic programs.

Table 3.2: Number of Students by Gender in Terms of Fields of Study, Previous Language Learning Experiences, and Language Proficiency Levels

Gender	Fields of Study		Language Learning Experiences		Language Proficiency Levels		
	Science	Non-Science	Less	More	Hi	Mo	Lo
Male (n=343)	188	155	63	280	12	192	138
Female (n= 789)	300	491	64	725	15	484	289
Total (n = 1,132)*	488	646	127	1,005	27	676	427
χ^2 Value	$\chi^2 = 25.25$ p < .01		$\chi^2 = 27.82$ p < .01		N.S.		

* Note: 2 students did not identify their gender.

In respect of gender of students related with the other three variables as presented in Table 3.2, the chi-square result shows that the distribution of the male and female participants varied significantly with fields of study and previous language learning experiences. That is, there are more female students studying in both fields

of study than male ones, particularly non-science-oriented fields. Also, a higher proportion of female students are of more and less previous learning experiences. However, the distribution of students with different genders is not significantly different in respect of their language proficiency levels.

Table 3.3: Number of Students by Fields of Study in Terms of Previous Language Learning Experiences, and Language Proficiency Levels

Fields of Study	Language Learning Experiences		Language Proficiency Levels		
	Less	More	Hi	Mo	Lo
Science (n=487)	75	412	11	250	226
Non-Science (n= 645)	52	593	16	426	201
Total (n = 1,132)*	127	1,005	27	676	427
χ^2 Value	$\chi^2 = 15.00$		$\chi^2 = 27.19$		
	p < .01		p < .01		

* Note: 2 students did not specify their fields of study.

Table 3.3 demonstrates the number of students by fields of study in terms of previous language learning experiences and language proficiency levels. The chi-square result reveals that the distribution of students with different language learning experiences is significantly different in respect of their previous language learning experiences and language proficiency levels. Both students studying in both fields of study have more previous language learning experiences than eight years. Additionally, a higher proportion of non-science-oriented students are of 'high' and 'moderate' language proficiency levels than of the 'low' level.

Table 3.4: Number of Students by Previous Language Learning Experiences in Terms of Language Proficiency Levels

Language Learning Experiences	Language Proficiency Levels		
	High	Moderate	Low
8 years or less (n=126)	0	61	65
More than 8 years (n=1,002)	27	615	360
Total (n = 1,128)*	27	676	425
χ^2 Value	$\chi^2 = 13.82$ $p < .01$		

* Note: 6 students did not provide their previous language learning experiences.

When the number of students with different language learning experiences is related to their language proficiency levels as shown in Table 3.4, the chi-square result shows that there is significant variation in the distribution of language proficiency levels among the students who have studied English for more or less than eight years. That is, a higher proportion of students with higher previous language learning experiences are of 'high', 'moderate', and 'low' language proficiency levels than those who have less previous language learning experiences.

3.4 Methods in Language Learning Strategy Research

Literature on language learning strategies indicates that there are several ways of gathering data on what strategies learners employ and how learners use strategies in learning L2. These strategy assessment tools include learning strategy inventories (questionnaire), interviews, observations, think-aloud protocols, and diaries (Cohen and Scott, 1996). At present, certain research methods in the field of language

learning strategy research are well established, but no single research method is perfect (Cohen and Scott, 1996). That means each research method recently used in this field has both advantages and disadvantages. Hence, prior to choosing a research method of the study, it would be better to review the recently used research methods in this field in order to compare and contrast the weaknesses and strengths of each method. Then the most appropriate research methods will be chosen based on the research purposes of the present study. As Robson (2002) suggests, whatever method a researcher will employ, the primary thing that he/she should concern is the main purpose of study. “Research methods are procedures a researcher follows in attempting to achieve the goals of a study” (Johnson, 1977: 9).

In this section, the main research methods or procedures used to gather data on language learning strategies will be discussed and this followed by the framework of methods for data collection for the present investigation. The main research methods on language learning strategies include:

1. Classroom observations
2. Interviews
3. Self- report questionnaires
4. Think-aloud protocols
5. Diaries

3.4.1 Classroom observations

Attempts have been made to identify different language learning strategies by observing learners performing as a variety of tasks, normally in classroom settings (Ellis, 1994). Classroom observations can be conducted either formally and informally (Oxford and Burry-Stock, 1995). This method is fruitful and workable as reported by Chesterfield and Chesterfield (1985) that they could report a number of

learning strategies used by young learners in a bilingual classroom. This may be, according to Ellis (1994), that observation works well with young children whose behaviours may serve as a good indicator of their mental activity.

Classroom observations are normally used in educational research to understand and describe situations, interactions and events. A key distinction in the different approaches to observation concerns relationship of the observer to what is being observed. Robson (2002) suggests that classroom observations are characterized according to the degree of participation and the amount of structure imposed by the researchers. Further, for the degree of observers' participation, observations can be classified into complete observer, observer as participant, participant as observer, and complete participant. Complete observers are not actively involved in what is going on in the classrooms. Observers as participants are present within what is being observed, but not try to actively influence what is happening. Participants as observers are active in the events and interactions, becoming part of what is being observed. Complete participants are full and complete members of the events and interactions being studied. Apart from the degree of participation, observations can be grouped according to the amount of researchers' control: structured and unstructured observations. In the structured observation, the observers have a scheme or schedule of some sort which determines the kinds of events and interactions to be recorded. In the unstructured observation, on the contrary, the observers have no predetermined scheme or framework, nor will any expectation of what to be observed/recorded.

However, many researchers in the field of language learning strategies have found that classroom observation of students in language classrooms has proved

likely fruitless as the method of identifying learning strategies (e.g. Cohen and Apehek, 1981; Naiman et al., 1975; Chamot, 2001; Rubin, 1981). Cohen and Apehek (1981) and Naiman et al. (1975) found that this method fails to provide much information about learning strategies that language learners employ. Chamot (2001), Oxford (1990), and Rubin (1975) further found that this method is not very productive as it provides insufficient information about students' use of learning strategies, particularly the mental operations such as reasoning, analyzing, or using imagery.

3.4.2 Interviews

“The interview is the most widely used method of generating data in qualitative social research.” (Nunkoosing, 2005: 698)

In investigating students' language learning strategies, researchers can ask students to explain and describe how they use strategies or what strategies they use when dealing with language learning. One way to do this is to interview students. In a student interview, it calls for retrospective accounts for strategies they have employed (Ellis, 1994).

In interviews, learners can be asked to reflect on a learning task or recall strategies or 'special tricks' they used to carry out the task (Chamot, 2001). These interviews can be characterized in terms of their degree of formality and can be placed on a continuum ranging from unstructured through semi-structured to structured (Nunan, 1992). An unstructured (open) interview is guided by the responses of the interviewees and the researchers exercise very little or no control over the interview. The unstructured or open interviews have no predetermined scope or coverage, although there should be some sort of focus. The interviewees tell the interviewers anything they want, in the way and order which suits them. The interviewers, in the same time, might (sometimes) guide the conversation if it seems to be drifting too far

from the intended focus. This leads the direction of interviews relatively unpredictable. In a semi-structured interview, on the other hand, the interviewers have a general idea of where they plan the interview to go, and what should come out of it, but they do not enter the interviews with a lot of predetermined questions. In a structured interview (closed), the interview agenda is totally predetermined by the interviewers who ask specific questions in a particular order, and attempt to keep the interviewees on topic. The aim of this structure is to elicit the interviewees' view of something the researchers already have a framework for.

Whether unstructured or structured, interviews provide a great deal of flexibility in terms of what is covered, in the way things are deal with, relevance, detail depth, responsiveness, as the interviewer can clarify the questions, if necessary, ask follow-up questions, and comment on the students' responses (Chamot, 2001). Whatever type of interviews researchers choose to use as a data collection method, they should consider the nature of the search and the degree of control they wish to exert. Of the three types of interviews, the semi-structured interview seems to be mostly used among researchers as stated in Nunan (1992: 149) "...because of its flexibility, the semi-structured interview has found favour with many researchers, particularly those working within an interpretive research tradition." Not only does the flexibility it give to the interviewers, but also provide the interviewers a degree of control. Additionally, personalized information on many types of language learning strategies gained from the interviews would not be available through observations (Oxford and Burry-Stock, 1995). However, according to Chamot (2001), the disadvantages of the retrospective interviews that should be paid attention are that students may not report their strategy use accurately, that they may report what they perceive as the

interviewers' preferred answers, or that they may claim to use strategies that have been encouraged by teachers rather than actually used.

3.4.3 Self-report questionnaires

Similar to interviews, self-report questionnaires are used to elicit learner responses to a set of questions and they require researchers to make choices regarding question format and research procedures (Cohen and Scott, 1996). Questionnaires typically cover a range of language learning strategies and are usually structured and objective in nature (Oxford, Crookall, and Lavine, 1989). Question items in written questionnaires can range from those asking for 'yes' or 'no' responses or indications of frequency such as Likert scales to less structured questionnaire items asking respondents to describe or discuss language learning strategies they employ in detail where the respondents have more control over the information included in their responses. The questionnaires require the respondents to not only indicate whether they use a particular strategy, but also ask to rate frequency with which they use it.

This mode of strategy assessment may be the most cost-effective and the easiest to collect data about students' reported use of learning strategies (Chamot, 2001). The questionnaires are almost nonthreatening when administered using paper and pencil under conditions of confidentiality (Oxford and Burry Stock, 1995). Further, written questionnaires enable the researcher to collect data in field settings and the data obtained are more amendable to quantification than those collected through free-form field notes, participant observing journals or the transcripts of oral language (Nunan, 1992). *Therefore, in the past three decades, the questionnaire has been popularly and widely used in collecting data concerning language learners' uses of learning strategies (O'Malley et al., 1993; Oxford and Burry-Stock, 1995).* The

drawbacks of questionnaires are that students may not understand the intent of a question, that they may answer according to their perception of the 'right answer', and that the questionnaire may not fully elicit all of a student's strategies (Chamot, 2001).

3.4.4 Think-aloud protocols

According to Chamot (2001), think-aloud protocols involve a one-on-one interview in which language learners are given a target language task and asked to describe their thoughts while working on it. Methods of thinking aloud have mainly been used to investigate the processes of translation and communication in a foreign language (Feldmann and Stemmer, 1987). Think-aloud interviews are recorded and transcribed verbatim, then analyzed for evidence of language learning strategies. While think-aloud procedures have shortcomings, they often provide a very clear picture of a learner's on-line processing strategies (Chamot, 2001). In other words, think-aloud protocols offer the most detailed information of all because the student describes strategies while doing a language task; but these protocols are usually used only on a one-to-one basis, take a great deal of time, reflect strategies related just to the task at hand, once the task is complete, the learners may not take the time to look back on the task and evaluate their performance (Oxford, 1990). An additional drawback of think-aloud procedures is that individual interviews, transcription, and analysis are extraordinarily labour-intensive (Chamot, 2001).

3.4.5 Diaries

For the past decade or so, in an effort to collect data on language learning strategy use, some researchers have turned to diaries as a research tool (Cohen and Scott, 1996). As Nunan (1992) also points out, "diaries, logs, and journals are important introspective tools in language research" (p.118). According to Robson's

(2002: 258) definition, a diary, considered as a research tool, “is a kind of self-administered questionnaire.” In this sense, diaries are learner-centred responsibility and unstructured, the entries probably cover a wide range of themes and issues.

Diaries appear to provide the means of generating very substantial amounts of data with minimal amount of effort on the part of the enquirer (Robson, 2002). For example, in pedagogical perspectives, diaries are a valuable pedagogical instrument in themselves, “when teachers ask students to introspect about learning, comment on the class, and communicate about what they are learning, students get more involved in the course and make connections between themselves and the course materials” (Porter et al., 1990: 227). However, on further reflection, and after a quick browse through students' diary entries, it soon became evident that they constituted an interesting source of information about the students' use of strategies and their skills in language learning, which is important since measuring students' use of strategies has long been one of the great challenges (Skehan, 1989). Cohen and Scott (1996) also note that diaries might include learners' written verbal reports of the cognitive, metacognitive, and social strategies they use daily in language learning.

There is some attempt to combine the keeping of a diary with the other research methods to separate out, and to get people to notice, specific happenings that they consider to be important (Robson, 2002). Robson further states that diaries can also serve as a proxy for observation in situations where it could be difficult or impossible for direct observation to take place. Alternatively, Burgess (1981) argues for the use of diaries as precursor to interviewing, especially as a means of generating the list of questions to be covered in the interview.

3.5 Framework of Data Collection Methods for the Present

Investigation

“Individual researchers have a freedom of choice. They are “free” to choose the methods, techniques, and procedures of research that best their needs and purposes.”

(Creswell, 2003: 12)

Different methods of data collection may lead to different conclusions about the character and language learning strategy use. Having reviewed the methods of data collection on language learning strategies thoroughly, the researcher decided to employ a mixed data collection methodology and analysis; the use of two methods of data collection in this study.

Adhering to this concept, two different qualitative and quantitative data collection methods were implemented to gather data for the present research. They include focus-group interviews and written strategy questionnaires. As Creswell (2003) highlights, the sequential procedures of strategies associated with the mixed method approach may begin with a qualitative method for exploratory purposes and following up with a quantitative method with a large sample so that it can generalize results to a population. These two methods are suitable for the present investigation because the present study aims at exploring, and describing that Thai public university freshmen differ as EFL learners in part. This is because differences lies in their knowledge about and skills in using “how to learn” techniques, that is, learning strategies, which EFL students in the Thai public universities employ to improve their English both inside and outside classroom. In doing this, students are required to recall their retrospective accounts of the language learning strategies they have employed in different settings. Both focus-group interviews and written strategy

questionnaires will serve the purposes of the study as they will provide rich and abundant amounts of information of language learning strategies. According to Ellis (1994: 534), “a method that has been found to be more successful involves the use of structured interviews and questionnaires, both of which call for retrospective accounts of the strategies learners employ.” Additionally, O’Malley and Chamot (1990: 88) state that “...the broadest range of coverage for strategy use can be obtained with questionnaires and guided interviews because of the structure given to the questions, whereas the narrowest range of strategy coverage seems likely to occur with think-aloud procedures, since the data collector is constrained from using prompts for additional strategies by the nature of the approach.”

3.6 Methods for Data Collection

In collecting data for the present investigation, there were two phases: focus group interviews; and written questionnaires. Two of them were conducted with EFL freshmen studying in the public universities in Thailand. Focus-group interviews was the main method for the first phase of data collection to give access to ‘facts’ about language learning strategies employed by Thai public university freshmen. The obtained data were later used to generate in term of the language learning strategy questionnaire. Later on, the questionnaires were employed in the second phase of data collection or the main fieldwork scheme to examine the overall use and the patterns of language learning strategies that Thai public university students employ in general.

In the last three decades, a focus-group interview has been widely used in the marketing research (Krueger, 1994). Only recently, this data collection technique, as

Krueger explained further, has crept into the field of educational research. A focus group interview, as Krueger defined, is “a carefully planned discussion designed to obtain perceptions on a defined area of interest in a permissive, nonthreatening environment” (p.6). In the focus-group interview, “group members influence each other by responding to ideas and comments in the discussion” (Krueger, 1994, p.2). Importantly, the focus group interview “enable researchers to have access to the opinions, viewpoints, attitudes, and experiences of individuals” (Madriz, 2000, p.840).

Mindful of the distinctive characteristics of a focus group interview, a series of focus group interviews were arranged to gather data for the study. The group interviews will be conducted to provide participants an opportunity to discuss and exchange information among themselves regarding language learning strategies they use in learning EFL inside and outside classroom, how they improve their English as well as how the investigated variables: 1) gender; 2) fields of study; 3) language learning experiences; and 4) types of academic programs, contribute to such uses, as well as how this contribution influence 5) their language proficiency levels.

Interview questions were initially generated from the review of subsequent studies carried out in the field of language learning strategies (e.g. Ehrman and Oxford, 1989; Intaraprasert, 2000; Naiman et al., 1975; Oxford and Nyikos, 1989; Oxford and Ehrman, 1995; Yang, 1999; and Wharton 2000). After reviewing the mentioned interview questions and questionnaire items of other scholars, interview questions were selected to be used in the present study according to research purposes and questions. The interview structure below was translated from English into Thai, then Thai into English again in order to reduce the possibility of being misinterpreted

and misunderstood by the participants whose first language is Thai. The focus-group interview may be used to help identify the characteristics, strategies and techniques of language learners. The interviews are divided into two sections:

Part One: Background and previous knowledge about L2

Part Two: Language learning strategies

Part I – Background & Previous Knowledge

- 1) Name
- 2) Birthplace
- 3) Education:
 - 3.1 Fields of study
 - 3.2 Types of academic program
- 4) Do you consider yourself to be :
 - a. a high language learner
 - b. a moderate language learner
 - c. a low language learner
- 5) When did you start and how long did you learn English?
- 6) Where and under what circumstances did you learn English?
- 7) When you learn English, what did you study? Grammar? Speaking?
- 8) Do you remember what kind of text-books you used, if any?
- 9) Did the teacher speak in the foreign language most of the time?
- 10) Do you remember what kind of homework you had to do?
- 11) Did you have any contact outside the classroom/your home with English native speakers?
- 12) Did you listen to the radio or watch films or TV in English?
- 13) Do you think that your success at learning English is due to the teacher? Or did it have something to do with the environment? Or would you say that you developed some special study habits? Or do you have some particular personal learning techniques that helped you in learning?

Part II – Language Learning Strategies

1. What have you been doing in your class in the past few weeks?
2. How often do you study English at university?

3. According to 2., do you think it is enough for you?
4. What is the level of your ability in English as high, moderate, or low?
5. Could you please tell me which aspects of learning English are easy or difficult for you? Why?
6. Do you do anything to help yourself understand the English lessons better (before/during/after the class)?
7. What do you do to improve your English in general (inside and outside the classroom)?
8. How do you think you get along with your teacher and the other students in class?
9. How does the atmosphere in the English class compare with that of other classes?
10. Which classroom activities do you most like or dislike? Why?
11. Which classroom activities do you consider to be the most or the least effect and useful? Why?
12. In your opinion, should the teacher speak English only while teaching?
13. What do you do when you get stuck while responding in English?
14. When you make an error, would you prefer to be interrupted right away or would you rather finish your response?
15. Do you mind being corrected? Why?
16. What would you like to get out of the English course in the long run?
17. Do you have any other comments about your language learning experiences that you would like to tell me?

Then the interview questions in this structure were checked the validity by experts in terms of research and content validity, then piloted. With comments from those participating in pilot interviews and with a discussion with the supervisors and other experts, the interview questions were then re-worded and re-arranged before their actual uses.

Afterwards, a number of focus-group interviews were arranged at a different time to allow participants to select the time-slot that was most likely convenient for the participants to participate in the group interviews. Each group interview was approximately one hour to one hour and a half. With consent from the participants, each interview would be audio-taped and later transcribed by me. The data from focus group interviews helped create a better understanding in language learners' use of language learning strategies and how the investigated variables determined their strategy use. More importantly, these interview data provided the preliminary data of an issue under an investigation in the context of EFL learners studying in the Thai public universities.

In the second phase of data collection, the language learning strategy questionnaires were administered with Thai public university freshmen in order to elicit what types of language learning strategies they use and the frequency of the strategy use. The items in the questionnaire were generated from the self-report information obtained through the focus-group interviews. There may be some strategy items, if appropriate, taken from the work of other researchers such as Cohen and Chi (2002), Intaraprasert (2000), O'Malley and Chamot (1989), and Oxford (1990). Then, the questionnaire items in this structure were checked the validity by experts in terms of research and content validity, as well as the reliability with Cronbach Alpha (α).

The questionnaires used to assess the extent to which public university freshmen employ language learning strategies were a 4-point rating scale. The scale was valued 0, 1, 2, or 3.

0 = Never
1 = Sometimes
2 = Often
3 = Always or almost always

The advantage of this type of instrument is that it can easily be administered to a large group of students, scoring and data compilation are relatively simple, and more importantly, precise quantitative measures can be derived (Bialystok, 1981). In addition, the Thai translation of the strategy questionnaire was conducted, as this helped maximize ease of administration and ensure greater accuracy of results, especially with the low-ability students. The translation was done by the researcher and then checked for the validity with the main supervisor, other experts, and colleagues who are native speakers of the Thai language working at universities in Thailand.

3.7 Sampling and Rationales for Choice of Participants and Institutions

According to Kinnear and Gray (2000: 2), a sample is “a selection of observations (often assumed to be random) from a reference set, or population, of possible observations that might be made.” The sample is a part of a population. Samples are usually drawn for the research purposes, and according to certain rules, of enabling inferences to be drawn about the population and its parameters on the basis of the sample and in particular on the basis of sample statistics (Robson, 2002).

As Cohen and Manion (1985) note, “The correct sample size depends on the purpose of the study and the nature of the population under scrutiny” (p.101). The sample is selected according to the needs and purposes of the study. In this sense, the samples of the present study must be good representatives of the entire population to some extent; that is, they are good representatives for public university freshmen learning English as a foreign language in Thailand. In selecting the samples, multistage sampling was administered. By cluster sampling (see Appendix 2), the 21 limited-admission public universities in Thailand were classified according to the geographic regions of the country: north; south; northeast; east; and central region. Then, 21 universities were stratified according to the following investigated factors.

1. Types of academic program

There are two types of undergraduate programs (a bachelor’s degree) in Thailand that the 21 limited-admission public universities in Thailand recently offer: 1) regular programs - using Thai as the medium of instruction; and 2) international programs - using English as the main medium of instruction. Nowadays, among those 21 public universities, there are 10 public universities offering international programs along with regular programs (Weerathaworn, 2004). Each type of academic program had to be sampled.

2. Fields of study

“Fields of study” in this study are generally classified into two broad groups: science-oriented and non-science-oriented. The science-oriented field includes Medicine, Dentistry, Veterinary Science, Pharmacy, Public Health, Nursing, Medical Technology, Science, Environmental Science, Food Science, Engineering, and Architecture. The non-science-oriented field includes Business Administration/

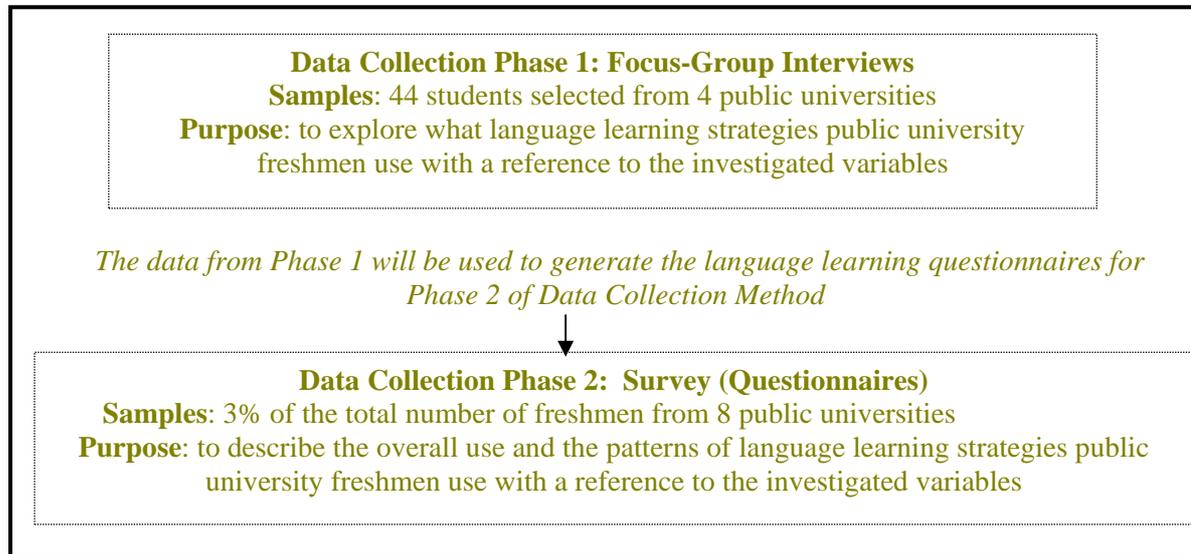
Management, Economics, Political Science, Sociology, Socio-Anthropology, Law, Education, Arts/Liberal Arts, Mass Communication, Social Sciences and Humanities. Each field of study has to be sampled. Nowadays, all the 21 public universities offer both science-oriented and non-science-oriented fields of study.

The reason why these two factors were selected was based on how best met the particular purposes of the investigation.; that is, to examine the relationship between language learning strategies used by Thai public university freshmen and the five investigated variables, which included 1) gender, 2) fields of study, 3) language learning experiences, 4) types of academic programs, and 5) language proficiency levels. Sampling in this study, therefore, was definitely necessary to cover the key aspects of the investigated variables.

Of the 8 universities, based on the consideration of the number of total freshmen (tentatively calculated from data of Academic Year 2004), 50% of the 8 universities is 4 universities selectively and variously included: 3 universities locating in the regional part of Thailand, and the another university in the Bangkok Metropolitan of Thailand were already taken part in the first phase of data collection which involved approximately 10 students from each university, from both genders, and from both fields of study in focus-group interviews. Later, in responding to the strategy questionnaire in the second phase of data collection, 3 % out of 39,086 freshmen in the 8 limited-admission public universities were equally selected to participate in this phase of data collection.

In conclusion, the framework of data collection process is summarized as follows in Figure 3.1:

Figure 3.1: Framework of Data Collection Process



3.8 Analyzing, Interpreting, and Reporting Data

The data obtained through two phases of data collection were analyzed to answer the research questions of the present study. The data obtained in the first phase was self-report information from focus-group interviews and the second phase of data collection was self-report information from the language learning strategy questionnaires.

The data analysis, interpretation, and report were presented into two main sections: qualitative; and quantitative (as shown in Table 3.5).

Table 3.5 : Analyzing, Interpreting, and Reporting Data

Research Question	Data	Research Question	Analysis
Qualitative	Qualitative (Miles and Huberman, 1994)	What are the types of language learning strategies reported to be employed by public university freshmen learning English as a foreign language in Thailand?	<ol style="list-style-type: none"> 1. Transcribing and translating the interview data 2. Developing coding schemes and initial coding – “start list” 3. Establishing trustworthiness in coding schemes

Table 3.5 (contd): Analyzing, Interpreting, and Reporting Data

Research Question	Data	Research Question	Analysis
Quantitative	Quantitative (with the SPSS program)	<ol style="list-style-type: none"> 1. What is the frequency with which these language learning strategies are reported to be used by these students? 2. Do students’ choices of language learning strategies vary significantly with their gender? If they do, what are the main patterns of variation? 3. Do students’ choices of language learning strategies vary significantly according to the fields of study they are studying? If they do, what are the main patterns of variation? 4. Do students’ choices of language learning strategies vary significantly according to the types of academic programs they are studying? If they do, what are the main patterns of variation? 5. Do students’ choices of language learning strategies 	<ol style="list-style-type: none"> 1. <u>Frequency of Strategy Use</u> To compare the extent to which strategies used frequently or infrequently in general, three levels of strategy use: ‘high use’, ‘medium use’, and ‘low use’ based on the holistic mean scores of frequency 2. <u>Analysis of Variance (ANOVA)</u> To determine the relationship between learners’ overall reported strategy use and 1) ‘Gender of Students’: male or female; 2) ‘Fields of Study’: science and non-science; 3) ‘Types of Academic Programs’: regular and international; and 4) ‘Levels of Language Proficiency’: high, moderate, or low. 3. <u>The post hoc Scheffé test</u> To determine the significant differences as the results of ANOVA, and to indicate which pair of the groups under such a variable contributes to the overall differences 4. <u>Chi-square Tests</u> To determine the significant

Research Question	Data	Research Question	Analysis
		vary significantly according to their English learning experiences? If they do, what are the main patterns of variation? Do students' choices of language learning strategies vary significantly according to their levels of language proficiency? If they do, what are the main patterns of variation?	variation patterns at the individual item level, to check all the strategy items for significant variations by 1) 'Gender of Students'; 2) 'Fields of Study'; 3) 'Types of Academic Programs'; and 4) 'Levels of Language Proficiency', and to compare the actual frequencies of different responses on the 4-point rating scale; the raw data based on average responses for each item by consolidating into "low strategy use" and "high strategy use" (Green and Oxford, 1995: 271). 5. <u>Factor Analysis</u> To determine the nature of underlying patterns among a large number of variables (Cohen and Manion, 1994) by seeking the underlying patterns of language learning strategies the variation patterns strongly related to each independent variable

3.9 Summary

In summary, the present investigation was conducted in two phases. The research methods and instruments were different in both phases according to the research purposes of each phase of data collection. In the first phase, student focus-group interviews were organised with 44 informants. The data obtained in this stage were then employed to generate the language learning strategy questionnaire which was the main research instrument of the large-scale investigation in the second phase of data collection. At this stage, 1,134 participants responded to the written strategy questionnaires. In addition, the characteristics of these participating students were identified as the research population.

The results of the data analyses for the student focus-group interviews and written strategy questionnaire are to be presented in the subsequent chapters. Chapter 4 mainly deals with the process of generating the written strategy questionnaires, which emerged from the results of the student focus-group interviews. Later, Chapters 5 and 6 focus on the data obtained through the strategy questionnaires.

CHAPTER 4

LANGUAGE LEARNING STRATEGY INVENTORY AND THE STRATEGY QUESTIONNAIRE

4.1 Introduction and Purpose of the Chapter

This chapter mainly describes the language learning strategy inventory which emerged from the data obtained through student focus-group interviews conducted with 44 public university freshmen in Thailand. The interviews were organized to explore what language learning strategies these students use with reference to the five investigated variables in this study: 1) gender; 2) fields of study (science and non-science-oriented); 3) language learning experiences (dealing with number of English learning years); 4) types of academic programs (regular and international); and 5) language proficiency levels (self-rating proficiency: high; moderate; and low). Firstly, the procedures of gaining information from the 44 students in the first phase of data collection are presented. This is followed by a description of how the preliminary strategy inventory was generated on the basis of the interview data. The last part of the chapter presents the strategy questionnaire which was used as the main research instrument for the second phase of data collection.

As mentioned in Chapter 2, language learning strategies have been variously defined and categorized due to individual researchers' own justifications and systems derived from their direct and indirect experiences. As Intaraprasert (2000) states,

“what is suitable for a researcher to use to elicit the use of language learning strategies with one group of language learners may not be suitable for another” (p.88). Therefore, it would be more practical for the present investigation to make use of the information that is directly gained from public university students in the context of Thailand, rather than to borrow other researchers’ definitions and classifications which are obtained from the results of studying language learners in other specific contexts. The focus-group interviews in the first phase of data collection, therefore, would help to initially access to find out the preliminary data about the Thai students’ use of language learning strategies and factors relating to such strategies. In the focus-group interviews, open-ended questions in the interviews were especially valuable in early or exploratory stages of the present investigation. The answers given to these open-ended questions in the interviews were then used to create closed-question responses in a language learning strategy inventory for a large-scale survey in the second phase of data collection. Afterwards, the strategy inventory would be employed to elicit general language learning strategies from Thai public university students on a large scale. Glock (1987 cited in Neuman, 2003: 279) emphasizes that

“A major source of data in survey research is the qualitative interview conducted during the planning phase of a project. Such interviews with a small but roughly representative sample of the population to be surveyed subsequently, afford an indispensable way to learn about the nature of variation and how to go about operationalizing it.”

4.2 The Main Stage of the Student Focus-Group Interviews

The first phase of data collection was the stage in which the student focus-group interviews conducted with Thai public university students in Thailand during

December 2005 – January 2006. The purpose of the semi-structured focus-group interviews at this stage was to obtain students' use of language learning strategies in the classroom and in a free learning situation, as well as to find out how they improve their English language skills in general and what factors relate to their use of language learning strategies.

In focus-group interviews, “group members influence each other by responding to ideas and comments in the discussion” (Krueger, 1994: 2). Due to the distinctive characteristics of focus-group interviews, they “enable researchers to have access to the opinions, viewpoints, attitudes, and experiences of individuals” (Madriz, 2000: 840). A series of focus-group interviews in the present study were arranged by providing participants with an opportunity to discuss and exchange information among themselves concerning their language learning strategies they use to learn EFL and what factors contribute to their use of such strategies. Recommendations on optimal group size vary from seven to ten participants needed for session (Krueger, 1994). However, the bigger the group is, the less comfortable interviewees feel to be part of a group. Furthermore, with a small group, the interviewer can more easily manage the group dynamics, process the information and attend to each member (Carey, 1994). Thus the researcher planned to conduct the small focus-group interviews with approximately six participants in each group due to the recruitment of male and female students at equal number. Each group interview was around one hour to one hour and a half. With consent from the participants, each interview was audio-taped (as suggested by Cohen, Manion, and Morrison, 2000; Robson, 2002; Creswell, 2003) since relying on the interviewer's notes is insufficient. The data from focus group interviews, once transcribed and analyzed together with a check for the

reliability and validity, would help create a better understanding in Thai language learners' use of language learning strategies and what factors relate to their use of such strategies.

The process of conducting the focus-group interviews consisted of three central phases: interview preparation, interview implementation, and analysis of interview data.

Phase 1: Preparation

Carey (1994) recommends that not only the study of the research topic and the development of guideline questions, and selection and recruitment of group members should be mainly focused in the preparing process of the interviews, but also the logistics are truly important to the successful use of focus-group interviews e.g. rooms, and tape-recording equipment. In the light of this, it was concerned that having a smooth group interview should come with having the suitable rooms that are comfortable and afford privacy to avoid any interruptions. Additionally, a good preparation of recording equipment is taken into account.

Based on the piloting experiences, the researcher noticed that there were some questions interviewees required time to prepare for their answers. So, prior to each interview, allowing the interviewees to read through the questions should be helpful in sense of time-saving for both the interviewer and interviewees. Additionally, the quality of the interview data sometimes concerned with the quantity of tape-recording equipment. Recording the data with one audio-tape recorder seemed unreliable because based on the characteristics of group interviews, the interaction within the group emerged in a natural sequence of conversation rather than a question-answer chaining. Thus, in the actual focus-group interviews, the number and the position of

tape recorders should be variously prepared with the number of interviewing participants and the seating arrangement.

- The development of guideline interview questions

After reviewing the research working definitions and research questions, the researcher formulated the guideline questions, which were used for the interview sessions and the initial development of themes or categories in data analysis. The content of the interview questions partly emerged from the researcher's review of literature and related research in the field of language learning strategies, and partly through the researcher's personal experiences about language learning strategies.

According to the concept of positivism explained in Silverman (1993), interview data give the study access to 'facts about the world' (p.91) of participants by discovering their biographical information and statements concerning their L2 behaviours and performances. The interviews, therefore, would generate preliminary data addressing the following details:

1. Facts: these relate primarily to biographical information about the respondents;
2. Present and past behaviours in using language learning strategies in L2 learning: specific questions related to actual rather than hypothetical situations;
3. Conscious reasons: rather than simply ask "why" the researcher also examined broad classes of considerations that may have determined this outcome.

The interview questions were piloted in Thai with four public university students to test the clarity and comprehensibility of all questions prior to be used in the actual interviews. With comments from those participating in the pilot interviews and with a discussion with the researcher's main supervisor, the interview questions were re-worded and re-arranged before their actual uses. The piloting helped the researcher not only with the wording of questions but also with procedural matters such as the question sequences, the reduction of non-response rates, and the time arrangement.

- The selection and recruitment of group interview members

The group interview members were selected on the basis of their characteristics related to the research framework and the investigated variables: gender; fields of study (science and non-science-oriented); types of academic programs (regular and international); and language proficiency levels (self-rating proficiency: high; moderate; and low).

Four public universities were simply randomised to take part in the first phase of data collection. They included 3 universities located in the regional parts of Thailand, and the other university in Metro-Bangkok. Approximately 10 students from each university participated in the focus group interviews (see Appendix 3). These students were purposively selected from the participating universities to cover the investigated research variables and to achieve the particular purpose of the investigation. The researcher believed that the data obtained through the focus-group interviews of 44 purposively selected participants would provide enough information to generate the strategy questionnaire which would be used in the second phase of

data collection. As Oppenheim (1992) states, the samples do not need to be truly representative of the target group but may only be representative of a part of that population.

- Contacting with the participating universities

To gain permission to conduct research, the researcher first sent a letter (see Appendix 4) to the Academic Boards of the participating universities. The letter gave brief information of the research mainly including a summary of the study, data collection methods, the period required for data collection, together with asking for their assistance in selecting and recruiting students for the study. Most importantly, the letter promised that the process of data collection would not interfere with the normal classroom teaching.

Phase 2: Implementation

- Conducting the interviews

Once permission from the participating universities had been granted formally, the researcher followed her interview timetable by meeting the selected and recruited students at the rooms prepared by each participating university. Considering about ethics in interviewing, the researcher followed the three main areas of ethical issues proposed by Cohen et al. (2000) namely informed consent, confidentiality, and the consequence of the interviews. Before starting the interviews, the participants all received the consent forms (see Appendix 5) together with a verbal summary of the present research to ensure that the possible consequences of the research were made clear to them, the care was taken to them and to any other related person they referred to would be of confidentiality and anonymity. After completing the consent forms for willingly participating in the focus-group interviews, they were given 10 minutes to

read throughout the focus-group interview questions (see Appendix 6), and then each interview was audio-taped.

During the interviews, the researcher addressed the participants by their nicknames. This was one way to help establish a congenial atmosphere for session (Measor, 1985). This also helped the researcher remember the group members individually to balance between active and passive roles of every group member, and not allowed one person to dominate. The researcher followed the guidelines of conducting interviews proposed by Cohen et al. (2000) to ensure that the interviews were conducted in an appropriate, non-stressful, and non-threatening way. During the interviews, the researcher was required to be a good listener rather than a good speaker avoiding the cause of any interruptions, the share of giving advice or opinions as well as any personal facial and bodily expressions (Carey, 1994; Creswell, 2003). To check for the validity of the data, one way could be operated is that the interviewer should have the informants serve as a check throughout an ongoing dialogue regarding the researcher's interpretations of their reality and meanings to ensure the truth value of the data (Creswell, 2003). Thus, generally after finishing the discussion of the guideline questions and before going to next questions, the researcher fed back a summary of the discussion to the group in order to have the group members clarify and correct the information.

- Taking actions after the interviews

The focus-group interviews were finally conducted smoothly because the required assistances and cooperation were fully supported by both participating universities and their students. After the interviews, the researcher thanked the

participants with a small reward for their time, and delivered the formal thank-you letters to the Academic Boards of participating universities.

Phase 3: Analysis

- Transcribing and translating the interview data

The eight audiotape-recorded interviews which constituted the database were fully transcribed in the Thai language by the researcher and consequently transformed into individual text electronic files. Some simple layout elements were used transcription to facilitate data processing later. Transcriptions are transformations of one mode – a conversation or oral discourse - into another mode: narrative discourse. As Miles and Huberman (1994) suggest, such transformations often erase contextual and non-verbal data and make transcription inevitably selective. In this case, the interview transcripts were deliberately selective, privileging the record of verbal expressions (where language learning strategies were reported) and keeping the transcripts as simple as possible. No systematic effort was made to reflect accurately in the transcripts the occurrence of interjections, emphasis, pauses, voice tone, or gestures, etc.

A substantial amount of time was invested in transcription. The slow and always unrewarding process paid off in the end as the transcripts condensed the raw material into readily analyzable texts. Notes on initial thoughts and impressions during the transcription were kept and drawn upon later to initiate the analysis. The researcher paid careful attention and attempts to find the way to make the availability of such recordings useful for the present research as much as possible. The researcher believed that the transcriptions would tell what certainly took place in the interviews.

“What is collected though possibly subject to some constraints represents the reality of the experiences of the group members” (Carey, 1994: 233).

To increase the reliability and validity of the interview transcripts, the researcher used three strategies: 1) comparing researcher’s handwritten notes with tape transcripts; 2) repeatedly listening and transcribing the tape records of each interview; and 3) equating the literal meanings of transcripts through careful back-translations; the researcher emailed to ask for assistances from friends who are now studying PhD in the United Kingdom to check the researcher’s translated data by doing an English-Thai translations, then compared the original language texts.

- Developing coding schemes and initial coding

According to Miles and Huberman (1994), there are two main types of coding. The first one, a grounded approach, is used by an inductive researcher who may not want to pre-code any datum until the researcher has collected it, seen how it functions or nests in its context, and determined how many varieties of it there are. The second is to create a provisional “start list” (Miles and Huberman, 1994: 58) of codes prior to fieldwork/interview. That list comes from the conceptual framework, the list of research questions, and the key variables that bring a researcher to the area of investigation. For the present study, it is the second type of coding. Thus guideline questions of the interviews could actually serve as the initial categories and could provide a common structure of analysis across the interview sessions.

After the interview recordings had been transcribed and translated into English, the primary language learning strategy inventory was initially generated through the following steps.

Step One:

1. The researcher carefully read through the interview data regarding language learning strategies reported by 44 participants of 8 groups from 4 open universities to get a whole picture of how they used language learning strategies in learning English.
2. Each language learning behaviour or strategy which was consistent with the working definitions of the present study was accordingly adopted, and the codes were then given to such behaviour and strategy.
3. From the interview recordings, it was found that the interviewees produced altogether 473 statements (see a summary in Appendix 7) about language learning behaviours or strategies.
4. Tentatively, there were 473 statements existing. However, the researcher realized that it was impossible to include all of the 473 strategies in the language learning strategy classification. They, therefore, were reorganized and condensed. Finally, there were 97 language learning strategies remaining, grouped roughly under the two main categories: Classroom-Related Language Learning Strategies; and Classroom-Unrelated Language Learning Strategies.
5. Next, the 20 of 97 language learning strategies were excluded from the language learning strategy category because they were more related to communication strategies. As a number of scholars in this field argue that communication strategies are related to language use rather than language learning (e.g. Cohen, 1998; Ellis, 1994; Tarone, 1980). The two processes (language use and language learning) are so different in terms of their function

and their *psycholinguistic representation* that “they are best kept separate” (Dörnyei, 2003: 168).

Communication strategies are contained in the language use strategy, which is defined as the ability to successfully ‘get one’s message across’ (Tarone and Yule, 1989:19). Such strategies are used to enable language users to organize their utterances as effectively as possible to get their messages across to particular listeners. These strategies are also considered to be part of the ability to repair, or compensate for, breakdown in communication (Tarone, 1980).

Additionally, it can be noticed, from the priori language learning classifications proposed by a number of researchers e.g. Stern (1975, 1983, 1992), Ellis and Sinclair (1989), Oxford (1990) (see Chapter 2, Section 2.3) that communication strategies are described in those classifications as techniques used to keep conversation going e.g. using circumlocution, gesturing, paraphrasing, or asking for repetition and explanation. Particularly, Oxford (1990)’s taxonomy includes communication strategies in the name of compensation strategies. These strategies are related to language learning strategies which compensate for lack of competence. Oxford (1990:50) classifies them under overcoming limitations in speaking and writing. These are:

1. Switching to L1 (or so-called ‘codeswitching’)
2. Getting help from others to get the messages across
3. Using mime, gesture, or non-verbal noise such as a sigh
4. Avoiding communication partially or totally
5. Adjusting or approximating the message
6. Coining words by making an L1 word sound like an L2 word
7. Using circumlocution or a synonym

According to the characteristics of communication strategies described above, any learning behaviour or performance lacking the focus on overcoming limitations of communication difficulties (e.g. clarifying the question in order to get help, and using gestures or explaining with other words to compensate the unknown words) is regarded as a language learning strategy.

Step Two:

1. The researcher further went through the reported statements again, in this step to identify similar, phrases, patterns, themes, relationships, sequences, differences within and among those 77 language learning strategies gained from Step One.
2. After having negotiation and discussion with the main supervisor, it is clearer to classify the learners' reported performances and perceptions of acquiring L2 learning in the classroom context and in a free situation under the four main language learning strategy categories: 1) preparing oneself for classroom lessons; 2) understanding while studying in class; 3) improving one's language skills; and 4) expanding one's general knowledge of English. Each main category includes two subcategories. The first main category of language learning strategies involves those used by the language learners to prepare themselves before or after classroom lessons. Next, the second category consists of learning strategies employed to understand while studying in class. They could be divided into two main subcategories depending on with whom the language learners play interactions: intra-personal or inter-personal. Finally, the subcategories of the last two main categories similarly comprise of

learning strategies applied with a support of media or non-media utilization.

The media here covers newspapers, magazines, television, radio, and internet.

3. To apply a structure and reference system of those categorizations, the researcher gave codes to the four main categories as follows:

“Prep” for Preparing Oneself for Classroom Lessons;

“Under” for Understanding while Studying in Class;

“Imp” for Improving One’s Language Skills; and

“Exp” for Expanding One’s General Knowledge of English.

4. An individual strategy for those four categories was then listed under their two main categories, that is,

1. Preparing Oneself for Classroom Lessons (Prep)

- 1.1 Before Class (PrepB)

- 1.2 After Class (PrepA)

2. Understanding while Studying in Class (Under)

- 2.1 Intra-Personal Interaction (UnderINTRA)

- 2.2 Inter-Personal Interaction (UnderINTER)

3. Improving One’s Language Skills (Imp)

- 3.1 Media Utilization (ImpM)

- 3.2 Non-Media Utilization (ImpNM)

4. Expanding One’s General Knowledge of English (Exp)

- 4.1 Media Utilization (ExpM)

- 4.2 Non-Media Utilization (ExpNM)

For example, PrepB 1.1 was abbreviated to the first individual language learning strategy which students reported employing in the first preparing

themselves for classroom lessons. Although the researcher finally could classify the language learning strategies into four main categories, it does not mean that the language learning strategies under the four categories are certainly separated. Instead, some of them can constantly and possibly appear in any different categories depending on individual researchers' justification. For example, the language learning strategy regarding 'reviewing own notes/summary' can be grouped into either PrepB or PrepA. That means language learners may use this strategy before class to be ready for what they are going to learn in class, or they may use it after class to help understand what is learned already in class. In the present investigation, such strategy was classified into PrepA since the predicate "review" expresses the sense of considering making changes of anything rather than preparing things in advance.

5. After establishing the coding and categories, a clear definition of each category was given to use to analyze the whole data. Firstly, Preparing Oneself for Classroom Lesson Strategies was defined as strategies used by language learners to prepare themselves physically and academically before or after class lessons. Secondly, Understanding while Studying in Class Strategies involved strategies employed to help learners understand what is learned in class. They could be divided into two kinds of learners' interactions: intra-personal and inter-personal. Intra-personal interactions dealt with the language learning strategies learners use to interact with themselves, while inter-personal interactions means social interactions that language learners use to interact with the teacher or other students in their

classrooms. Next, Improving One's Language Skill Strategies covered strategies language learners used to improve their language skills in general with or without a use of media utilization. Lastly, Expanding One's General Knowledge of English Strategies dealt with strategies language learners employed to help expand their general knowledge of English outside the class, together with a consideration of a reliance on media utilization to do so.

- Establishing trustworthiness in coding schemes

Once the initial analysis of the data sets was completed, a second coder involved in a blinding-coding exercise conducted with a subset of tapescripts, that means the second coder did not know which codes were used by the first coder (the researcher). Both coding outcomes were compared and used to improve the definitions of coding categories and subsequently to refine the coding in the full data base. The reviewed definite versions of coding schemes and actual coding were subject to a final blind coding exercise to determine inter-coder reliability using the formula suggested by Miles and Huberman (1994: 64).

$$\text{Inter-coder reliability} = \frac{\text{number of agreements}}{\text{number of agreements} + \text{disagreements}}$$

In the present study, approximately 25 per cent out of the reported language learning strategies was used as a sample of the data base. The transcripts were coded by the researcher, while the other five coders were not involved in the development of the coding schemes. These five coders included three Ph.D. students, and two M.Ed. students studying at the University of Leeds, U.K. All coders were provided with print-outs of a list of 28 language learning strategies and then randomly selected 30 reported statements. These language learning strategies and reported statements were

randomly ordered. The five coders were then asked to match the reported statements to the language learning strategies to the language learning strategies. What follow is the sample task for this reliability (Appendix 8). Figure 4.1 shows the sample task.

Figure 4.1: A Sample Task for the Reliability

The Language Learning Strategy Coding/Categorization

Instructions:

- Please read the list of language learning strategies in (A) and the list of reported statements in (B) carefully.
- Choose the reported statements of (B) to match the language learning strategies of (A) by writing the number; 1-30 statements of (B), in the space given in front of each language learning strategy of (A).
- Please note that each reported statement of (B) can be used only ONCE, while some language learning strategies of (A) can be used MORE THAN ONCE.
- When completing the matching, please give some comments if you have had any difficulties or confusion matching between (A) and (B).

Example:

(A) List of language learning strategies
1.....- Seeking out more supplementary resources to study before class

(A) List of language learning strategies

.....- Seeking out more supplementary resources to study before class
- Finding ways to help understand what is learnt in class
- Checking word meanings from dictionaries
- Making own lesson summary to prepare for the examinations
- Adapting oneself to meet and serve the teacher's criterion

(B) List of reported statements

1. 'I've planned how much time I'll devote to English study in relation to my overall purpose and long time needs for studying English...'
2. 'I sometimes seek out additional information through articles/magazines by surfing Internet before doing assignments/homework...'
3. 'If I find any unknown/new/unclear words, I check with a dictionary...'
4. 'After class, I sometimes borrow friends' text books/lectures to recheck and add more input that I missed in class...'
5. 'In class, I always use colourful highlighters to mark what the teacher emphasizes...'

Once the responses were collected, agreements and disagreements were computed, and the coding decisions were made by the five coders. The results obtained were shown in Table 4.1 below:

Table 4.1: Inter-Coder Reliability

Coder	Agreement	Disagreement	Inter-Coder Reliability
1	24	6	0.80
2	26	4	0.87
3	28	2	0.93
4	29	1	0.97
5	27	3	0.90

These agreements informed in the review of the coding scheme and actual coding throughout the interview sets. As a consequence of the review, ambiguous definitions of codes were sharpened and some coding categories were split. These helped the final coding to be more systematic. As inter-coder reliability at the level of 0.80 or above was established in all cases, there was confidence to take inter-coder reliability indicators to mean that the five coders working independently used roughly the same codes for the same segments of data and disagreements among coders did not occur if they had processed the full data base. This result also revealed that their coding was consistent with that proposed by the researcher. However, the reliability revealed that there were a few reported statements addressed a lack of clarity and insufficient explanation that could cause the difficulties to matching. For example, one of the coders, a Ph.D. student, gave a comment that a clear categorization of the main categories should be done to facilitate and reduce lots of time to analyze and match the statements.

In sum, although the above process of interview data analysis was time-consuming, the researcher could go through this with an assistance of experts who do have experiences in this type of data analysis. As Robson (2002) states, in qualitative data analysis, the experienced people like the researchers' supervisors and professional lecturers in the same field can help the researcher analyze this type of qualitative data.

4.3 The Main Stage of the Language Learning Strategy Inventory Generation

The interview data obtained in the first phase of data collection were analyzed and then classified according to *learners' both academic and nonacademic learning performances to achieve particular L2 learning purposes*. Following are the results of the student oral interviews regarding the language learning strategies employed by the participating students. With a careful selection and classification of those learning strategies, the language learning strategy inventory was derived from an inclusion of four main language learning strategy categories: 1) preparing oneself for classroom lessons (Prep); 2) understanding while studying in class (Under); 3) improving one's language skills (Imp); and 4) expanding one's general knowledge of English (Exp).

4.3.1 Language Learning Strategies Reported Using for Preparing Oneself for Classroom Lessons

The language learning strategies under this main category are those which were reported to be employed by 44 public university freshmen in order to prepare themselves for classroom lessons. Some strategies may be reported to be employed

before class; some while studying in class; and others after class. The ten strategies in this main category which students reported include:

I. Preparing Oneself for Classroom Lessons (Prep)

1. Before Class (PrepB)

PrepB 1 Studying the course details before hand

PrepB 2 Preparing oneself physically

PrepB 3 Attempting to attend the class

PrepB 4 Doing revision of the previous lessons

2 After Class (PrepA)

PrepA 1 Reviewing own notes/summary

PrepA 2 Attempting to revise today's lessons

PrepA 3 Doing homework or assignments

PrepA 4 Personally approaching the teacher by asking the teacher for clarification of what is learnt in class

PrepA 5 Practicing what is learned in class with the teacher

PrepA 6 Discussing L2 learning problems with the teacher

4.3.1.1 Preparing Oneself for Classroom Lessons Before Class (PrepB)

Some students reported that they found it is important to study content or studying the course details beforehand. They hope this may help them to understand better in classroom learning with the teacher. Four individual strategies which students reported employing in order to achieve this language learning purpose include:

- **PrepB 1** Studying the course details before hand

MIC1:...I look at the learning objectives of each lesson beforehand and do some preparation,...

SUTR1:... I skim through the outline of the lesson beforehand as it helps me to be well-prepared for the classroom lesson,...

- **PrepB 2** Preparing oneself physically

NUR5:...I have to go to bed early because my class always starts at 8 am...

MIC5:...I normally skip having social functions during the weekdays because I don't want to feel so exhausted that I can't concentrate on the lessons in class...

- **PrepB 3** Attempting to attend the class

SUR2:...I don't like English. I feel so bad when I have to study it. But, I try to remove this feeling and attend the class regularly. I know how important English is...

- **PrepB 4** Doing revision of the previous lessons

SUTR5:...before class, I do the revision of the previous class lessons, but not often. I'll do the revision on what the teacher has just taught. This helps me to be well-prepared for the next class...

MIC2:...before coming to class, I do the revision where I cannot follow in class. I normally do that with my friends. That helps me understand the previous lessons better...

4.3.1.2 Preparing Oneself for Classroom Lessons After Class (PrepA)

Apart from the before-class preparation, many students reported that it is also important to prepare themselves after class for classroom lessons. They hope this may help them to understand what they have learned in class better. Six individual strategies which students reported employing in order to achieve this language learning purpose include:

- **PrepA 1** Reviewing own notes/summary

SUR4:...after class, I do the revision. I look at the notes I took in class, and summarised them again.

MUR3:...after class, I do the revision of the previous lessons with my notes I took in class to check my understanding...

NUI1:...after class, I do the revision with my classmates by comparing our notes and summarise them again if having misunderstanding, ...

SUTR2:...I review what has been learned/teacher taught in class...what I get today...every day I think “what I got/learned today”....

- **PrepA 2** Attempting to revise today’s lessons

NUI2:...I know my nature...I’m quite a lazy one, so I force myself to put an attempt to revise what I learned in class every day,...

SUI3:...Revising today’s lessons after class helps me feel that I can understand what I learned better and see why I made mistakes for some questions that I could not answer...

- **PrepA 3** Doing homework or assignments

MUR4:...After class, I always finish the homework if I’m assigned to do so, if not...nothing much to do and no before-class preparation...

SUTR3:... I join the university self-access learning center because my teacher assigns me to do so...

MUR5:...Every week after class, we go to the self-access center at the library for doing the assignments, i.e. joining the clubs there....e.g. movie club, grammar club, vocabulary club...

NUR2:...After class, we do the group assignments together at the dormitory. We are normally assigned to do group or individual work almost every week after class....

SUI1:...We always have to do a lot of assignments after class ...

- **PrepA 4** Personally approaching the teacher by asking the teacher for clarification of what is learnt in class

SUTR4:... Sometimes I call the teacher in case I have any questions...teacher gave us the contact phone number.

NUI3:...After class, I tend to go to the teacher's office for clarification of what I don't understand in class....

MUI4:...I personally dislike contacting with the teacher after class, but sometimes I have to do so because I need more lesson clarification for better understanding.

- **PrepA 5** Practicing what is learned in class with the teacher

SUTR6:... Teacher assigns students to do one-to-one speaking/talk with teacher outside class at teacher's office, practice speaking according to the patterns in the commercial textbook outside the classroom. So, we have a chance to practice what we learned in class with the teacher.

MUR1:...This semester, after class, the teacher assigns us to practise self-introduction in English with other teachers, together with interviewing them some questions.

- **PrepA 6** Discussing L2 learning problems with the teacher

NUI4:...Because we use English as a medium in teaching and learning, I sometimes have a problem with keeping up with teachers' instructions in class.

I, therefore, discuss this problem with some teachers and ask for their suggestions for the following class preparation and practice.

4.3.2 Language Learning Strategies Reported Using for Understanding while Studying in Class

As reported in the interviews, some public university freshmen believe that studying English in class is considerably important to them. They believe that paying close attention to the teacher and to the lesson may help them keep up with their teacher. Avoiding talking with other students while studying, thinking to oneself along with the teacher's instruction, or double checking what is learned with friends may also be useful for them. The strategies which students reported employing to achieve this language learning purpose include:

II. Understanding while Studying in Class (Under)

1. Intra-Personal Interaction (UnderINTRA)

UnderINTRA 1 Trying to get a seat in the front row

UnderINTRA 2 Avoiding talking with other students while studying

UnderINTRA 3 Taking notes while studying

UnderINTRA 4 Thinking to oneself along with the teacher's instruction

UnderINTRA 5 Trying to understand English by translating into Thai

UnderINTRA 6 Consulting a dictionary

2. Inter-Personal Interaction (UnderINTER)

UnderINTER 1 Asking the teacher for clarification

UnderINTER 2 Double checking what is learned with friends/classmates

UnderINTER 3 Joining a language study group

UnderINTER 4 Choosing to sit near students proficient in L2

UnderINTER 5 Participating in the classroom activities

4.3.2.1 Understanding while Studying in Class with Intra-Personal Interaction (UnderINTRA)

As reported in the interviews, a number of students think that it is important to strategically manage themselves to gain fully understanding while studying in class. Six individual strategies which students reported employing in order to achieve this language learning purpose include:

- **UnderINTRA 1** Trying to get a seat in the front row

SUI1:...I have to sit in the front row. At the front, I can see the board and the teacher clearly. I have more concentration.

NUR1:...If I have a chance, I try to sit in the front row. This is because every time when I sit at the back of the classroom, a lot of my friends tend to keep me talking with them. So, I have no concentration at all.

- **UnderINTRA 2** Avoiding talking with other students while studying

MUR3:...To avoid being distracted while studying, I choose to sit with classmates from other faculties who are unfamiliar with me because they will not talk to me.

NUR1:...While studying in class, I don't talk with friends. I try to concentrate on keeping up with the teacher's instructions...

SUI2:...I try to listen to the teacher and do exercises attentively. If I talk, I cannot concentrate on what I am doing.

- **UnderINTRA 3** Taking notes while studying

NUR3:... While studying in class, I like taking notes, particularly new/unknown vocabulary. Then I ask the teacher for translation and explanation. This can help me understand and keep up with the teacher's instructions...

MUR3:...I take notes of what I don't understand, and wait to ask the teacher in the Q & A Section, which is provided for 15 minutes before the class is over...

SUTR5:...I take notes of what I think or the teacher says is important.

SUI2:...The teacher sometimes gives us outside-class knowledge, and I found it very important and interesting, I like taking notes as well.

- **UnderINTRA 4** Thinking to oneself along with the teacher's instruction

SUR5:... While doing exercises in class, I try answering the questions to myself silently, and then compare with those given by the teacher and my classmates.

MUR3:...I like thinking along with the teacher while the teacher is teaching. I think to myself about exercises and questions that the teacher may ask...

- **UnderINTRA 5** Trying to understand English by translating into Thai

SUTR6:...If I've found any unknown words, I'll translate them into Thai and ask my classmates to check their meanings for me. I can't ask the teacher because the foreign teacher can't speak Thai or translate them into Thai for me...

NUR3:...If I have a problem with understanding reading passages, I will translate them into Thai.

SUI4:...In the listening class, I like to translate the tape scripts into Thai to help me deal with the listening exercises.

- **UnderINTRA 6** Consulting a dictionary

MIC6:...I normally bring a dictionary with me for English class. I like to use it to check the meanings of new/unknown words.

NUI2:... I like using a dictionary. I'm not lazy when I have to use it. I think it is one of the good knowledge resources.

NUI5: ...In the reading class, I normally use a dictionary to look up the meaning of new vocabulary items.

NUR4: ... When reading the textbooks in class, I consult a dictionary for reading comprehension and vocabulary memorization.

4.3.2.2 Understanding while Studying in Class with Inter-Personal Interaction (UnderINTER)

Some students reported that it is useful for them to have teachers and classmates involve in helping them understand what has been taught in class. Five individual strategies which students reported employing in order to achieve this language learning purpose include:

- **UnderINTER 1** Asking the teacher for clarification

MIC1: ... If I don't understand anything, I will wait and ask the teacher in class.

MUR4: ...Every time when receiving the corrected work, I read through it and ask the teacher to explain the rules showing what the errors are...

NUI6: ...If I have any questions about the lesson, I'll ask the teacher immediately.

MUR5: ...I normally raise my hand when I want to ask the teacher for clarification.

SUR5: ...Sometimes, before the class finishes, the teacher gives us an assignment, and if I don't understand clearly about the instructions, I will ask the teacher for clarification.

SUI5: ...Most of the time, I prefer to ask my friends rather than the teacher. But, if they cannot give me the clarification, I'll ask the teacher.

- **UnderINTER 2** Double checking what is learned with friends

SUTR2:...I like to ask friends who sit next to me for checking my understanding what is learned in class.

SUTR4:...If I have questions about the lesson, I usually put a mark on them and ask my friends. If I can't get the answers from them, I will ask the teacher later.

MUR3:...I tend to ask a friend who is sitting next to me when having unclear understanding about the lesson.

SUR5:...While in class, if I can't follow the teacher's instruction, I'll ask my friends to explain it to me.

NUR4:...When I have any questions about the lesson, I list them and then ask my friends to give me a clarification.

NUI5:...I try to listen to the teacher attentively first, if anything I don't understand, I will ask my friends who sit beside me.

MIC 3:...Sometimes when I don't understand the lesson and don't have a chance to ask the teacher, I'll ask my friends for clarification.

- **UnderINTER 3** Joining a language study group

NUI2:... Before the examination, my friends and I will get together for the exam preparation to share our knowledge...

NUI3:... We, as juniors, join language study groups with the seniors who spend their time giving us tutorials every Wednesday evening this semester...

- **UnderINTER 4** Choosing to sit near students proficient in L2

MIC2:...I try to find a friend who is good at English...and sit near him/her. This may help me concentrate on what I am studying.

MUR1:...Just in case of having problems about the lesson in class, I try to sit near friends who are proficient in English. They would help me keep up with the teacher's instructions.

- **UnderINTER 5** Participating in the classroom activities

MUR4:...I try to take part in the classroom activities. This may help me understand the lesson better.

SUTR2:...I try to participate in classroom activities. By doing this, I will understand and memorise the lesson well.

4.3.3 Language Learning Strategies Reported Using for Improving One's Language Skills

As reported in the interviews, many public university freshmen found that improving their English skills in various aspects is crucial to them. They believe that the more they practise, the better language skills they will possess. The strategies which students reported employing to achieve this language learning purpose include:

III. Improving One's Language Skills (Imp)

1 Media Utilization (ImpM)

ImpM 1 Reading on-line materials (e.g. news, articles, tale stories, film scripts in English) to improve one's reading skill

ImpM 2 Reading printed materials such as books, magazines, newspapers in English to sharpen reading

ImpM 3 Reading any English-printed resources such as labels on drugs or consumer goods, computer instructions/functions in English to enrich the vocabulary and expressions apart from what one has learned in class

ImpM 4 Contacting with Thai or foreign friends through emails, instant messages (MSN) or SMS texts with computers or mobile phones to improve one's writing skill

ImpM 5 Watching English-speaking films to practice one's listening comprehension without looking at the Thai subtitles

ImpM 6 Watching television programs in English to help one familiar with the accents, tone of voice, and intonations

ImpM 7 Listening to English songs or cassette tapes of English conversations to practice one's listening skill

ImpM 8 Listening to radio programs in English to improve listening skill

ImpM 9 Imitating a native speaker from media such as films, songs, cassette tapes, TV shows to practice one's speaking skill

2. Non-Media Utilization (ImpNM)

ImpNM 1 Practicing writing with English texts such as poems, greeting cards, or diaries etc.

ImpNM 2 Conversing in English with teachers, peers, siblings, or foreigners

ImpNM 3 Talking to oneself in English

4.3.3.1 Improving One's Language Skills with Media Utilization (ImpM)

A number of students reported that they need more practice than others in order to improve their language skills, i.e. speaking, listening, reading and writing. They, therefore, seek every possible ways to do so. The learning strategies reported being employed in order to achieve this purpose include:

- **ImpM 1** Reading on-line materials (e.g. news, articles, tale stories, film scripts in English) to improve one's reading skill

SUTR2:...I enjoy spending my leisure time surfing the Internet for learning new words, new phrases, or sentences from what I read in those reading materials.

MUR1:...We frequently use the Internet to search for information relevant to the assignments. Accordingly, we have a chance to read a variety of on-line reading passages e.g. articles, stories, newspapers, magazines and so on.

- **ImpM 2** Reading printed materials such as books, magazines, newspapers in English to sharpen reading
NUI2:...I read advertisements and billboards in English. By doing this, I learn new words from those materials.
MIC3:...I like reading very much, especially short stories. I read for appreciation and for vocabulary enrichment.
SUI5:...I try to practise my reading with 'Bangkok Post.' I read it almost every day, and I learn a lot of new vocabulary.
- **ImpM 3** Reading any English-printed resources such as labels on drugs or consumer goods, computer instructions/functions in English to enrich the vocabulary and expressions apart from what one has learned in class
NUI3:... I will read whatever in English. Yesterday, I got a new computer, I tried to read the computer manual to follow its instructions.
MUR5:...I remember once I bought some medicine, and I then tried to guess the meanings of new words on the drug label.
- **ImpM 4** Contacting with Thai or foreign friends through emails, instant messages (MSN) or SMS texts with computers or mobile phones to improve one's writing skill
SUT6:...I used to be an exchange student in USA. So far, I still keep contacting with my host family through emails. This is one way I practise my writing skill.
MIC2:...Every day I and my friends like to contact by MSN. We write short messages in English with the mobile phones.

- **ImpM 5** Watching English-speaking films to practice listening comprehension without looking at the Thai subtitles

SUI5:...I like to watch English-speaking films to learn about the accent, tone of voice, and intonations....

NUR4:...I sometimes go to an English-speaking film with my friends, but not very often...I know this would help me improve my listening skill.

NUI1:...Every time when watching English-speaking films, I try not to look at the Thai subtitles. I still need more practice for successfully listening comprehension

- **ImpM 6** Watching television programmes in English to help one familiar with the accents, tone of voice, and intonations

NUI1:...I like to watch television programs on Cable TV whenever I have some free time. I feel that this will help me with the pronunciation.

MIC6:...Almost every night, I try to watch news programmes. Some of their reporters have beautiful accents. I can learn a lot from their accents.

- **ImpM 7** Listening to English songs or cassette tapes of English conversations to practice one's listening skill

SUI 3:...I like to listen to English songs. I also listen to English cassette tapes. This can help me improve my listening skill.

SUTR6:... Songs and karaokes help me memorize the lyrics in English and the English pronunciation. By doing this, my listening and pronunciation improve.

- **ImpM 8** Listening to radio programmes in English to improve one's listening skill

MUR4:...I try to practise my listening skills by listening to radio programmes in English, although at first many times I didn't understand what foreign DJ(s) said

at all. I keep practising this for a year. I think now I'm familiar with their accents.

SUR1:... I sometimes listen to the radio in English and I feel my listening skill is poor and improves a little..

- **ImpM 9** Imitating a native speaker from media such as films, songs, cassette tapes, TV shows to practice one's speaking skill

SUR2:... While listening to the songs, I sing a long. I look at the song scripts. I study how each word is pronounced and then I imitate.

NUR5:... When listening to the cassette tapes, I try to practise speaking after the tapes.

4.3.3.2 Improving One's Language Skills with Non-Media Utilization (ImpNM)

Apart from using media for improving language skills, some students reported that they also practise their language skills with non-media resources. Practicing writing with English texts such as poems, greeting cards, or diaries etc., or conversing in English with teachers, peers, siblings, or foreigners was reported to be helpful for them in improving their language skills:

- **ImpNM 1** Practicing writing with English texts such as poems, greeting cards, or diaries etc.

SUTR6:... Depending on my emotions, I occasionally write diaries in English.

NUI3:... I like to write greeting cards or poems in English. That is my hobby.

- **ImpNM 2** Conversing in English with teachers, peers, siblings, or foreigners
SUR2:... I try to speak English with the teacher both inside and outside the classroom to help me improve my speaking and listening skills.

MIC4: ...At home, my brother and I try to converse in English as much as we can. It's very challenging.

- **ImpNM 3** Talking to oneself in English

MUR1: ...I like to memorize some sentences from the films and then speak them to myself.

NUI2: ...I try to listen to my teacher in class while he/she speaks English, and keep responding to him/her silently. It's like a silent conversation.

4.3.4 Language Learning Strategies Reported Using for Expanding One's General Knowledge of English

As reported in the interviews, many public university freshmen found that expanding their English skills with media and non-media utilization is crucial to them. They believe that the more they practise, the more their general knowledge of English expands. The strategies which students reported employing to achieve this language learning purpose include:

IV. Expanding One's General Knowledge of English (Exp)

1. Media Utilization (ExpM)

ExpM 1 Practicing English with a commercially packaged English program
(e.g. TOEFL, IELTS, Follow Me)

ExpM 2 Playing games for vocabulary enrichment
such as English crossword puzzles

ExpM 3 Seeking out information in English through surfing the Internet

2. Non-Media Utilization (ExpNM)

ExpNM 1 Having extra tutorials
(e.g. attending extra classes at a private language school, having a personal tutor teaching English at home, taking short English courses abroad)

ExpNM 2 Translating English news, song lyrics, poems, etc. into Thai

ExpNM 3 Giving tutorials to others like junior students, peers, or siblings

ExpNM 4 Having one's own language learning notebooks

ExpNM 5 Using a dictionary for vocabulary enrichment

ExpNM 6 Practicing general English with family members

ExpNM 7 Joining leisure or social activities to practice and improve one's English (e.g. joining English Camps, entering singing contests, going to church on Sunday, etc.)

ExpNM 8 Taking job to practice English

(e.g. being a local/young guide in the hometowns, working part-time at a restaurant, where there are many foreign customers)

4.3.4.1 Expanding One's General Knowledge of English with Media Utilization (ExpM)

Some public university students reported that they found media utilization is helpful for them to be used for expanding their knowledge of English. The strategies which students reported employing in order to achieve this purpose include:

- **ExpM 1** Practicing English with a commercially packaged English program (e.g. TOEFL, IELTS, Follow Me)

SUTR1:...Outside the classroom, I practice listening with a package of commercial set like Follow Me...

SUIR3:... I used to buy or borrow commercial sets (self-study) to practice at home like Follow Me or English for You ...

- **ExpM 2** Playing games for vocabulary enrichment such as English crossword puzzles

NUI1:... I found the way to improve, develop, and practice my English, and then for a while after keeping playing crosswords, I realized my skills improved. Then I won the games finally...

NUI4:... I play crosswords with the teacher, I could answer almost every word/question ...I'm so happy when the teacher said I'm good at English...

- **ExpM 3** Seeking out information in English through surfing the Internet

SUR6:...I surf the Internet to acquire knowledge of English, and I think this helps me improve my English too...

MUR3:...I try to surf the Internet and it helps with my English knowledge

NUR2:...I like to use the Internet. I think it is useful because I have a chance to use English.

4.3.4.2 Expanding One's General Knowledge of English with Non-Media Utilization (ExpNM)

Aside from using media for expanding general knowledge of English, some students reported that they also practise their language skills with non-media resources. Having extra tutorials, taking any job to practice English, or having own language learning notebooks was reported to be helpful for them in achieving this purpose:

- **ExpNM 1** Having extra tutorials

(e.g. attending extra classes at a private language school, having a personal tutor teaching English at home, taking short English courses abroad)

NUI4:...I attend an extra class at a language school in order to learn to speak English with native speakers...

MIC3:...My parents sent me to take summer courses abroad like U.K. and Australia while I was at a secondary school...

SUTR6:...I practise speaking English at a language school, AUA (American University Alumni)...

- **ExpNM 2** Translating English news, song lyrics, poems, etc. into Thai
 NUI5:...I practise translating an English book every week.
 SUTR6:...Any songs I like, I try to translate their lyrics in Thai in order to help me understand their meanings and to appreciate them more...
- **ExpNM 3** Giving tutorials to others like junior students, peers, or siblings
 SUI2:... I myself like to teach children who are my neighbors sing English songs as well, so much fun...
 NUI6:...We occasionally give tutorials to the junior students in the evenings....
- **ExpNM 4** Having own language learning notebooks
 NUI4:... I have taken notes of some vocabulary every day 5 words a day until now and then try to memorise them day by day...
- **ExpNM 5** Using a dictionary for vocabulary enrichment
 NUI1:...I follow my teachers' suggestions bringing a dictionary with me, and when I happen not to understand some words...I consult it and study those words...I'm able to memorize and use them eventually...
 MUR2:...I like using a dictionary. It'll be better if I know more vocabulary...
- **ExpNM 6** Practicing general English with family members
 NUI6:...Since I was young every day three hours a day with my father, I practised reading English newspapers for him, and translating as well...
- **ExpNM 7** Joining leisure or social activities to practice and improve English (e.g. joining English Camps, entering singing contests, going to a church on Sunday, etc.)

SUI3:...I joined an English Camp where everyone used English all the time.

Foreigners talked and shared their experiences with Thai students and then Thai students had to do the same; talking and sharing any of their experiences in English as well. That's good for English practice...

SUTR6:... We had the English-singing contests... I joined them as well...

- **ExpNM 8** Taking job to practice English

(e.g. being a local young guide in the hometowns, working part-time at a restaurant, where there are many foreign customers)

SUTR2:... I used to work as local/young guide in my hometown during the semester breaks/weekends

SUTR4:... I practise English by taking a job in a restaurant in the South every semester break. Over there, there are many foreign customers.

To sum up, the researcher looked through the transcripts of the 8 translated interview recordings of 44 interviewees carefully and repeatedly with an attempt to find the theme or common characteristics of the reported statements. It was found that most of the statements which could be related to language learning strategies were expressed in the form of performances that the interviewees reported in acquiring L2 learning. These performances were then classified into the four leading categories. The 44 reported language learning strategies of the four categories were included in the language learning strategy inventory.

Table 4.2 below summarizes the outline of the language learning strategies when emerged from the data analysis obtained through student oral interviews for the present investigation.

Table 4.2: The Outline of the Language Learning Strategy Classification Included in the Language Learning Strategy Inventory for the Present Investigation

Reported Language Learning Strategies		
<i>Main Category</i>	<i>Reported Language Learning Strategy</i>	<i>Individual Strategy</i>
<u>Main Category 1:</u>		
Preparing Oneself for	PrepB	PrepB 1 - PrepB 4
Classroom Lessons (Prep)	PrepA	PrepA 1- PrepA 6
<u>Main Category 2:</u>		
Understanding while	UnderINTRA	UnderINTRA 1- UnderINTRA 6
Studying in Class (Under)	UnderINTER	UnderINTER 1- UnderINTER 5
<u>Main Category 3:</u>		
Improving One's Language	ImpM	ImpM 1 – ImpM 9
Skills (Imp)	ImpNM	ImpNM 1 – ImpNM 3
<u>Main Category 4:</u>		
Expanding One's General	ExpM	ExpM 1 – ExpM 3
Knowledge of English (Exp)	ExpNM	ExpNM 1 – ExpNM 8
		10+11+12+11 = 44

This preliminary strategy inventory needs validation. In doing so, it could be proved more valid with content validity, i.e. checked or examined by people other than the researcher herself in order to make comments about this strategy inventory. The supervisors in the field of education teaching at the University of Leeds and Suranaree University of Technology, therefore offered vital assistance by rechecking

which category an individual language learning strategy fell into and where disagreements arose the categorization were settled by negotiation.

What follows is a description of the process of designing and constructing the questionnaire for language learning strategies of the present investigation.

4.4 Questionnaire for Language Learning Strategies

The subsequent data analysis was used to generate the strategy inventory for language learning strategies in the second phase of data collection. Sometimes the data from semi-structured instruments can be used effectively to identify dimensions that can be used advantageously in designing structured interviews or questionnaires (Cohen, 1998). Examples of structured language strategy questionnaires derived from the results of interview data are Oxford's Strategy Inventory for Language Learning (SILL) (Oxford, 1990), and Intaraprasert's the Language Learning Strategy Questionnaire (LLSQ) (Intaraprasert, 2000) (see Chapter 2, Section 2.3). With different language learning strategy categories, the SILL questionnaire has been extensively used in measuring the frequency with which a student uses six different learning strategies including memory, cognitive, compensation, metacognitive, affective, and social strategies. Unlike the SILL, the LLSQ questionnaire is employed to elicit the frequency of students' use of two main language learning strategy categories, i.e. classroom-related and classroom-independent language learning strategies. The LLSQ excluded the reported language behaviours that are related to the communication strategies. More or less the same to the present strategy questionnaire, the communicative strategies considered as strategies of language use rather than those of language learning are not included in the strategy questionnaire

for this investigation. However, the structures of two language learning strategy questionnaires are definitely different because their main and sub-categories are not identical. In the present study the strategy questionnaire comprises of four main categories in which two subcategories are involved each.

The strategy questionnaire for the present investigation was generated on the basis of appropriateness to the research questions, purposes, and the expected respondents (Cohen et al., 2000; Punch, 1998). In this study, it aims to measure the frequency of the language learning strategies used by public university freshmen in Thailand as well as the related variables including their fields of study, types of academic programs, gender, and language proficiency.

As Punch (1998) points out, the questionnaire is used to seek factual information including background and biographical information, knowledge, and behavioural information. The language learning strategy questionnaire here was accordingly designed to elicit two key pieces of information: 1) students' background information about the four investigated variables: gender, fields of study, types of academic program, and self-rating language proficiency; and 2) the frequency of students' language learning strategy use. According to the purposes to be achieved, the questionnaire was divided into two main sections: 1) an introductory question asking about students' personal background information; and 2) a section about the language learning strategies they use in acquiring L2 learning.

Based on the research purposes aiming at investigating language learning strategies in general and on a large scale, structured, closed questions, and rating scales were truly useful in this situation. This followed a simple rule of thumb indicated in Cohen et al. (2000):

“...the larger the size of the sample, the more structured, closed and numerical the questionnaire may have to be, and the smaller the size of the sample, the less structured, more open and word-based the questionnaire may be.” (p.247)

Large scale surveys have close-ended questions because they are quicker and easier for both respondents and researcher (Neuman, 2003). However, to collect something important lost in the closed-ended questions, open questions were also provided in the present investigation to get many more possible answers.

The statements or questions in the questionnaire were ordered according to a common sequence as follows:

1. start with easy or unthreatening fact-based information; that is demographic data including students' gender, fields of study, types of academic programs, and self-rating language proficiency;
2. move to closed statements or questions; that is rating scales about given statements or questions, eliciting responses that require the information on how frequently students use their language learning strategies in L2 learning, the rated response will be given with the following criteria:

3	=	Always or almost always
2	=	Often
1	=	Sometimes
0	=	Never

- **Always or almost always** means that you always or almost always perform the activity which is described in the statement.
- **Often** means that you perform the activity which is described in the statement more than half the time.

- **Sometimes** means that you perform the activity which is described in the statement less than half the time.
- **Never** means that you never perform the activity which is described in the statement.

3. follow by more open-ended questions that give freedom of expressions to students to report more information of their language learning strategies they use, this is based on the fact that there are numerous possible language learning strategies that are not included in the strategy questionnaire of the present investigation.

In generating the questionnaire for the language learning strategies, checking the validity was carried out with an association of the professional lecturers in the field of education. The purpose of validation was to see whether or not others would agree with the proposed inventory, as well as to see if any modifications or improvements were needed. The strategy questionnaire was generated in English and Thai. The English version would be used for the purpose of discussion; while the Thai version would be for the purpose of data collection with public university freshmen in Thailand. The translation of the strategy questionnaire from English into Thai was done initially by the researcher; afterwards, it was verified by Thai-speaking lecturers.

Next, the questionnaire would be piloted, for Pole and Lampard (2002) point out that:

“The questionnaire needs to be considered as a whole rather than simply as a list of questions; hence both questions and questionnaires need to be piloted...” (p.102)

Importantly, the piloting survey principally increases the reliability, validity, and practicality of the questionnaire (Oppenheim, 1992). It means that the pilot

testing is necessary to establish not only the content validity of an instrument to improve questions, format, and the scales, but also a measure of reliability such as Cronbach's alpha (Cronbach, 1951, cited in Pole and Lampard, 2002). This particular measure varies between 0 and 1, with a higher value of 0.7 or greater indicating a scale with a satisfactory degree of reliability. In the present study, the pilot testing was organized with a small sample of the participants first as proposed by Dörnyei (2003) to detect any obscurity in the instructions, inappropriateness in the cover sheet, and flaws in the questioning, as well as to adjust the length of time allotted.

To check the internal consistency of the reliability of items in the strategy questionnaire of the present investigation, Alpha Coefficient (α) or Cronbach Alpha was used. The reliability estimate based on a 1,134-student sample is demonstrated in Table 4.3 below. The reliability estimates are high when compared with the acceptable reliability coefficient of .70, which is the rule of thumb for research purposes (Fraenkel and Wallen, 1993).

Table 4.3: Reliability Estimate of the Strategy Questionnaire as a Whole and the Four Main Categories

Language Learning Strategy Category	Reliability Estimate (Alpha Coefficient α)
Strategy Questionnaire as a Whole	.95
<u>Main Category 1:</u>	.91
Preparing Oneself for Classroom Lessons (Prep)	
<u>Main Category 2:</u>	.89
Understanding while Studying in Class (Under)	
<u>Main Category 3:</u>	.94
Improving One's Language Skills (Imp)	
<u>Main Category 4:</u>	.89
Expanding One's General Knowledge of English (Exp)	

Figure 4.2 demonstrates a sample of the questionnaire employed as the instrument to elicit students' frequency of language learning strategy use.

Figure 4.2: A Sample of the Language Learning Strategy Questionnaire

<p>1. Do you prepare yourself for classroom lessons?</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If 'No', please proceed to 2. If 'Yes', how often do you...?</p>				
Language Learning Strategy	Always or almost always	Often	Sometimes	Never
1.A) check the outline of the course	X			

4.5 Summary

The proposed language learning strategy inventory resulted from the student focus-group interviews. The results showed four main categories of language learning strategies: 1) preparing oneself for classroom lessons; 2) understanding while studying in class; 3) improving one's language skills; and 4) expanding one's general knowledge of English. These four categories were included in the language learning strategy inventory (see more details in Appendix 9). All the four categories totally comprised 44 individual strategies; that is, 10, 11, 12, and 11 strategies in each main group respectively.

As mentioned in Chapter 2, individual researchers have their own different ways to categorize language learning strategies, depending on their own direct or indirect experiences. Thus some language learning strategies with being named

variously appear in a number of researchers' language learning strategy categories. Similar to the present investigation, the researcher categorized the language learning strategies according to the learning strategies reported originally and directly from the interviewees who are now learning EFL in the context of Thailand. These language learning strategies were used to generate the strategy questionnaire which was then employed to elicit information regarding the frequency of language learning strategy use of public university freshmen in Thailand on a large scale, together with information from the background questionnaire. This also helped the researcher investigate some certain learner-related factors including gender, fields of study, types of academic programs, and language proficiency levels with reference to such language learning strategy use.

CHAPTER 5

DATA ANALYSIS FOR LANGUAGE LEARNING

STRATEGY USE I

5.1 Introduction and Purpose of the Chapter

The purpose of this chapter is to describe and discuss the research findings of the investigation. Comparisons of frequency use of language learning strategies reported by 1,134 students based on the holistic mean scores obtained from the strategy questionnaire are taken into consideration.

Language learning strategies have been specially defined here as behaviours or thought processes whether observable or unobservable, or both, that Thai public university students generate and make use of to enhance their L2 learning directly or indirectly either in the classroom or outside the classroom setting.

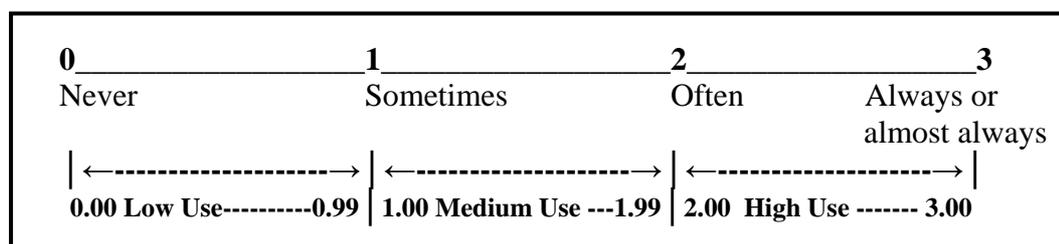
Strategy use that is consistent with the above working definitions was accordingly determined. Different levels of strategy use are determined in order to examine strategy use by the research population in a more detailed manner. Firstly, the frequency of overall strategy use reported by 1,134 public university freshmen will be explored. Afterwards, the frequency of the frequency of learning strategy use in the four main categories, which are 1) Preparing Oneself for Classroom Lessons (Prep), 2) Understanding while Studying in Class (Under), 3) Improving One's Language Skills (Imp), and 4) Expanding One's General Knowledge of English

(Exp). This is followed by a more detailed analysis of frequency of strategy use of the 44 individual learning strategies, presented in order of their mean frequency score, ranging from the highest to the lowest.

5.2 Use of Language Learning Strategies Reported by 1,134 Thai Public University Freshmen

As mentioned previously in the introduction, simple statistical methods were employed in the process of data analysis in this chapter. Then the comparisons of students' reported frequency of strategy use in different layers with significant variation patterns would be described and discussed in the subsequent chapter.

At this stage, the frequency of students' strategy use has been categorized as 'high', 'medium', and 'low'. This is organized by responses of the strategy questionnaire in which frequency of strategy use was measured on a four-point rating scale, ranging from 'never' which is valued as 0, 'sometimes' valued as 1, 'often' valued as 2, and 'always or almost always' valued as 3. So, the average value of frequency of strategy use could be valued from 0.00 to 3.00, with 1.50 being the mid-point of the minimum and the maximum values. The mean frequency score of strategy use of any categories or items valued from 0.00 to 0.99 was indicated as 'low use', from 1.00-1.99 'medium use', and 2.00-3.00 'high use'. Figure 5.1 below demonstrates the applied measure.

Figure 5.1: The Measure of High, Medium, and Low Frequency of Strategy use

(criteria adopted from Intaraprasert, 2000)

5.2.1 Frequency of Students' Overall Strategy Use

The result of the holistic mean frequency score across the learning strategy questionnaire responded to by the 1,134 Thai public university freshmen is illustrated in Table 5.1 below.

Table 5.1: Frequency of Students' Reported Overall Strategy Use

	Number of Students (n = 1,134)	Mean Score (\bar{X})	Standard Deviation (S.D.)	Frequency Category
Students' Reported Overall Strategy Use	1,134	1.00	.49	Medium Use

The mean frequency score of 1.00 in Table 5.1 points that as a whole, these public university freshmen reported their use of learning strategies with moderate frequency when dealing with English language learning. Also, later in this chapter, it will reveal the discovery of the certain language learning strategies that were reclassified into 'high use' and 'low use' categories.

5.2.2 Frequency of Strategy Use in the Four Main Categories

In the present study, the language learning strategies have been grouped into four main categories as previously shown in Chapter 4. They are called under the categories of 1) Preparing Oneself for Classroom Lessons (Prep), 2) Understanding

while Studying in Class (Under), 3) Improving One's Language Skills (Imp), and 4) Expanding One's General Knowledge of English (Exp). Table 5.2 demonstrates frequency of strategy use in the four categories, together with standard deviation and frequency category.

Table 5.2: Frequency of Use of Strategies in the Four Categories

Strategy Main Category	Number of Students	Mean Score (\bar{X})	Standard Deviation (S.D.)	Frequency Category
Prep Category	1,134	.79	.62	Low Use
Under Category	1,134	1.26	.65	Medium Use
Imp Category	1,134	1.05	.65	Medium Use
Exp Category	1,134	.88	.60	Low Use

Table 5.2 indicates that Thai public university freshmen participated in the present investigation reported medium frequency of strategy use in Categories 2 and 3, while reported low frequency of strategy use in Categories 1 and 4. The mean frequency scores show that Thai public university freshmen reported slightly more frequent uses of strategies for understanding while studying in class and for improving their four language skills rather than those for preparing themselves for classroom lessons, and for expanding their general knowledge of English. Among the four categories, students also reported using certain strategies to achieve certain purposes significantly more frequently than others. These differences in use of strategies to achieve those four purposes will be discussed in Chapter 6 (Section 6.3).

5.2.3 Frequency of Individual Strategy Use

The frequency of strategy in the previous section shows an overall picture of students' strategy use in the four main categories. This section provided further information on students' reported strategy use in a more detailed manner; category by

category, in order of the mean frequency scores, ranging from the highest to the lowest.

The frequency of individual strategy use, together with the standard deviation and the frequency category, would be illustrated in Tables 5.3, 5.4, 5.5, and 5.6 respectively according to the four main purposes of students' strategy use: 1) Preparing Oneself for Classroom Lessons (Prep), 2) Understanding while Studying in Class (Under), 3) Improving One's Language Skills (Imp), and 4) Expanding One's General Knowledge of English (Exp).

In Table 5.3, use of the ten strategies under the first main category are:

- Preparing Oneself for Classroom Lessons Before Class
 - PrepB 1 Studying the course details before hand
 - PrepB 2 Preparing oneself physically
 - PrepB 3 Attempting to attend the class
 - PrepB 4 Doing revision of the previous lessons
- Preparing Oneself for Classroom Lessons After Class
 - PrepA 1 Reviewing own notes/summary
 - PrepA 2 Attempting to revise today's lessons
 - PrepA 3 Doing homework or assignments
 - PrepA 4 Personally approaching the teacher by asking the teacher for clarification of what is learnt in class
 - PrepA 5 Practicing what is learned in class with the teacher
 - PrepA 6 Discussing L2 learning problems with the teacher

Table 5.3: Frequency of Strategies Used to Prepare for Classroom Lessons

Prep Category (n = 1,134)	Mean Score (\bar{X})	Standard Deviation (S.D.)	Frequency Category
PrepA 3 Doing homework or assignments	1.55	1.16	Medium Use
PrepB 3 Attempting to attend the class	1.04	1.08	Medium Use
PrepA 1 Reviewing own notes/summary	1.00	0.82	Medium Use
PrepB 4 Doing revision of the previous lessons	0.73	0.82	Low Use
PrepA 2 Attempting to revise today's lessons	0.67	0.66	Low Use
PrepB 1 Studying the course details before hand	0.63	0.72	Low Use
PrepA 5 Practicing what is learned in class with the teacher	0.62	0.72	Low Use
PrepA 4 Personally approaching the teacher by asking the teacher for clarification	0.61	0.72	Low Use
PrepB 2 Preparing oneself physically	0.57	0.77	Low Use
PrepA 6 Discussing L2 learning problems with the teacher	0.54	0.69	Low Use

Table 5.3 shows none of learning strategies used at the high frequency level. Most of the reported learning strategies were used at the low frequency level. These strategies are those for preparing themselves before and after classroom lessons. In more details, in terms of approaching the teacher, students reported very low frequency of strategies used to communicate with the teacher e.g. practicing what is learned in class with the teacher (PrepA 5), personally approaching the teacher by asking for question clarification (PrepA 4), and discussing L2 learning problems with the teacher (PrepA 6). However, there are a few learning strategies students reported at the medium frequency level: doing homework or assignments (PrepA 3); attempting to attend the class (PrepB 3); and reviewing own notes/summary (PrepA 1).

In Table 5.4, use of the eleven strategies under the second main category are:

- Understand while Studying in Class with Intra-Personal Interaction
 - UnderINTRA 1 Trying to get a seat in the front row
 - UnderINTRA 2 Avoiding talking with other students while studying
 - UnderINTRA 3 Taking notes while studying
 - UnderINTRA 4 Thinking to oneself along with the teacher's instruction
 - UnderINTRA 5 Trying to understand English by translating into Thai
 - UnderINTRA 6 Consulting a dictionary
- Understand while Studying in Class with Inter-Personal Interaction
 - UnderINTER 1 Asking the teacher for clarification
 - UnderINTER 2 Double checking what is learned with friends/classmates
 - UnderINTER 3 Joining a language study group
 - UnderINTER 4 Choosing to sit near students proficient in L2
 - UnderINTER 5 Participating in the classroom activities

Table 5.4: Frequency of Strategies Used to Understand While Studying in Class

Under Category (n = 1,134)	Mean Score (\bar{X})	Standard Deviation (S.D.)	Frequency Category
UnderINTER 2 Double checking what is learned with friends/classmates	1.66	0.94	Medium Use
UnderINTRA 3 Taking notes while studying	1.47	1.18	Medium Use
UnderINTER 5 Participating in the classroom activities	1.45	0.92	Medium Use
UnderINTRA 5 Trying to understand English by translating into Thai	1.42	1.12	Medium Use
UnderINTRA 4 Thinking to oneself along with the teacher's instruction	1.37	1.09	Medium Use
UnderINTER 1 Asking the teacher for clarification	1.14	1.07	Medium Use
UnderINTRA 6 Consulting a dictionary	1.11	1.04	Medium Use
UnderINTER 3 Joining a language study group	1.10	0.88	Medium Use
UnderINTER 4 Choosing to sit near students proficient in L2	1.06	0.90	Medium Use
UnderINTRA 1 Trying to get a seat in the front row	1.00	1.00	Medium Use
UnderINTRA 2 Avoiding talking with other students while studying	0.97	0.93	Low Use

Ten out of eleven strategies in the second main category reported with the medium level use in Table 5.4. These strategies were employed to achieve the purpose of understanding while studying in class. The strategies deal with whom students play interaction with in class; 1) inter-personal interaction (with friends and teacher) e.g. double checking what is learned with friends/classmates (UnderINTER 2), participating the classroom activities (UnderINTER 6), asking the teacher for clarification (UnderINTER 6), and 2) intra-personal interaction (with themselves) e.g. taking notes while studying (UnderINTRA 3), trying to understand English by

translating into Thai (UnderINTRA 5), and thinking to oneself along with the teacher's instruction (UnderINTRA 4). As a whole, students seem to play as both independent language learners and cooperative learners. This is because the strategies involving both intra-personal interaction strategies and inter-personal interaction strategies were apparently employed to understand what is learned in class.

In Table 5.5, use of the twelve strategies under the third main category are:

- Improving One's Language Skills with Media Utilization

ImpM 1 Reading on-line materials (e.g. news, articles, tale stories, film scripts in English) to improve one's reading skill

ImpM 2 Reading printed materials such as books, magazines, newspapers in English to sharpen reading

ImpM 3 Reading any English-printed resources such as labels on drugs or consumer goods, computer instructions/functions in English to enrich the vocabulary and expressions apart from what one has learned in class

ImpM 4 Contacting with Thai or foreign friends through emails, instant messages (MSN) or SMS texts with computers or mobile phones to improve one's writing skill

ImpM 5 Watching English-speaking films to practice one's listening comprehension without looking at the Thai subtitles

ImpM 6 Watching television programs in English to help one familiar with the accents, tone of voice, and intonations

ImpM 7 Listening to English songs or cassette tapes of English conversations to practice one's listening skill

ImpM 8 Listening to radio programs in English to improve one's listening skill

ImpM 9 Imitating a native speaker from media such as films, songs, cassette tapes, TV shows to practice one's speaking skill

- Improving One's Language Skills with Non-Media Utilization

ImpNM 1 Practicing writing with English texts

ImpNM 2 Conversing in English with teachers, peers, siblings, or foreigners

ImpNM 3 Talking to oneself in English

Table 5.5: Frequency of Strategies Used to Improve Language Skills

Imp Category (n = 1,134)	Mean Score (\bar{X})	Standard Deviation (S.D.)	Frequency Category
ImpM 5 Watching English-speaking films without looking at the Thai subtitles	1.26	0.91	Medium Use
ImpM 6 Watching television programs in English	1.25	0.88	Medium Use
ImpM 9 Imitating a native speaker from media	1.21	0.91	Medium Use
ImpM 7 Listening to English songs / cassette tapes of English conversations	1.21	0.93	Medium Use
ImpM 3 Reading any English-printed resources	1.21	0.83	Medium Use
ImpM 1 Reading on-line materials	1.14	0.79	Medium Use
ImpM 2 Reading printed materials	1.09	0.78	Medium Use
ImpM 4 Contacting with Thai or foreign friends through emails, instant messages (MSN) or SMS texts with computers or mobile phones	1.06	0.91	Medium Use
ImpNM 3 Talking to oneself in English	1.05	0.89	Medium Use
ImpNM 2 Conversing in English with teachers, peers, siblings, or foreigners	0.96	0.83	Low Use
ImpM 8 Listening to radio programs in English	0.87	0.82	Low Use
ImpNM 1 Practicing writing with English texts	0.84	0.79	Low Use

As shown in Table 5.5, the result is more or less the same as Table 5.4. Most of the reported strategies were used in the medium frequency level to improve their four language skills. As seen in the table, it is found that the first four highest mean scores of the learning strategies in this category were those which students reported using to improve their speaking and listening skills with media utilization, e.g. films (ImpM 5), television programs (ImpM 6), media (ImpM 9), songs/cassette tapes (ImpM 7). These are followed by the strategies used to improve reading and writing skills with or without media utilization e.g. printed sources (ImpM 3), on-line materials (ImpM 1), printed materials (ImpM 2), and emails, instant messages (MSN) or SMS texts with computers or mobile phones (ImpM 4).

In Table 5.6, use of the eleven strategies under the fourth main category are:

- Expanding One's General Knowledge of English with Media Utilization
 - ExpM 1 Practicing English with a commercially packaged English program
 - ExpM 2 Playing games for vocabulary enrichment
 - ExpM 3 Seeking out information in English through surfing the Internet
- Expanding One's General Knowledge of English with Non-Media Utilization
 - ExpNM 1 Having extra tutorials
 - ExpNM 2 Translating English news, song lyrics, poems, etc. into Thai
 - ExpNM 3 Giving tutorials to others
 - ExpNM 4 Having own language learning notebooks
 - ExpNM 5 Using a dictionary for vocabulary enrichment
 - ExpNM 6 Practicing general English with family members
 - ExpNM 7 Joining leisure or social activities to practice and improve English
 - ExpNM 8 Taking job to practice English

Table 5.6: Frequency of Strategies Used to Expand General Knowledge of English

Exp Category (n = 1,134)	Mean Score (\bar{X})	Standard Deviation (S.D.)	Frequency Category
ExpNM 5 Using a dictionary for vocabulary enrichment	1.51	1.08	Medium Use
ExpM 3 Seeking out information in English through surfing the Internet	1.15	0.92	Medium Use
ExpNM 1 Having extra tutorials	1.04	0.96	Medium Use
ExpM 2 Playing games for vocabulary enrichment	0.97	0.82	Low Use
ExpNM 2 Translating English news, song lyrics, poems, etc. into Thai	0.93	0.84	Low Use
ExpNM 3 Giving tutorials to others	0.82	0.82	Low Use
ExpNM 4 Having own language learning notebooks	0.76	0.90	Low Use
ExpM 1 Practicing English with a commercially packaged English program	0.64	0.71	Low Use
ExpNM 6 Practicing general English with family members	0.61	0.75	Low Use
ExpNM 7 Joining leisure or social activities to practice and improve English	0.57	0.77	Low Use
ExpNM 8 Taking job to practice English	0.36	0.67	Low Use

When considering the reported frequency of the strategy use in the last category in Table 5.6, we can see that a few strategies were employed with the medium frequency level to expand general knowledge of English; that is, using a dictionary for vocabulary enrichment (ExpNM 5), seeking out information in English through surfing the Internet (ExpM 3), and having extra tutorials (ExpNM 1). The rest, 8 off 11 strategies, is the majority of the strategies reported in the 'low use' category, which students low used with and without media utilization e.g. a commercially packaged English program (ExpM 1), games (ExpM 2), news, song

lyrics, poems (ExpNM 2). In addition, the 3 off 8 strategies reported in this low category are those employed to practise English with family members (ExpNM 6), join leisure or social activities (ExpNM 7), and take job (ExpNM 8). This can be proved that with or without media utilization shows indifferent level of students' frequency use to expand and improve their general knowledge of English.

5.3 Summary

The description of reported frequency of students' strategy use by 1,134 Thai public university freshmen at different levels in this chapter has provided an overall picture of strategy use. What follows is a summary of the highlights of the findings of the present investigation.

- Thai public university freshmen reported medium frequency of language learning strategy use dealing with language learning directly or indirectly either in the classroom or outside the classroom setting.
- Students reported employing strategies to understand the lessons while studying in class and to improve their language skills more frequently than those for classroom lesson preparation and general knowledge expansion of English.
- When looking at the individual strategy level in each category, we can see that:
 - Category 1 (Preparing for Classroom Lessons): students reported employing strategies to do homework or assignments, attempt to attend the class, and review own notes/summary more frequently than the other strategies in this category. However, students did not seem to personally approach the teacher

- for out-of-class practice, question clarification, and problem discussion.
- Category 2 (Understanding While Studying in Class): almost all strategies in this category students reported a medium use in terms of intra-personal and inter-personal interaction strategies employed to understand while studying English in class. This can be said that Thai public university freshmen apparently play roles as both independent learners and cooperative learners in the same time in order to help understand what is learned in class.
 - Category 3 (Improving Language Skills): almost all reported strategies were moderately used to improve language skills with media utilization, particularly speaking and listening skills with a use of films, television programs, songs/cassette tapes, and these skills were reported low frequency of use without media utilization. On the other hand, the strategies used for improving reading and writing skills were lower than those used for improving listening and speaking skills with or without media utilization.
 - Category 4 (Expanding General Knowledge of English): only 3 strategies were reportedly employed with the medium frequency to expand knowledge of English in general; that is, using a dictionary for vocabulary enrichment, seeking out information in English through surfing the Internet, and having extra tutorials. The majority of the strategies were reported in the 'low use' category with or without media utilization. In addition, strategies of practicing with family members, joining leisure or social activities, and taking any job were reported with lower use.

In this chapter, students' reported use of learning strategies as a whole, regardless of their gender, types of academic programs, fields of study, English learning experience, and proficiency levels has been described. Chapter 6 will present another angle on the data analysis concerning the five independent variables in this study, namely gender of students, types of academic programs, fields of study, English language learning experience, and proficiency levels. Finally, a factor analysis has also been conducted to look for underlying relationships among the individual language learning strategies in the strategy inventory, together with their strong relationships to the five variables.

CHAPTER 6

DATA ANALYSIS FOR LANGUAGE LEARNING

STRATEGY USE II

6.1 Introduction and Purpose of the Chapter

As illustrated in Chapter 5, the use of language learning strategies is divided into three different levels: overall reported strategy use; use of strategies in the four main categories; and use of the forty-four individual strategies in each subcategory of the four categories. This chapter includes significant variation and patterns of variation in frequency of language learning strategy use at each of these levels, and analyses in terms of the five independent variables. Lastly, the results of a factor analysis are also shown.

The primary purposes of this chapter are to examine the relationship between the language learning strategy use of 1,134 public university freshmen and five variables, namely:

1. gender of students, (males and females),
2. types of academic programs (international and regular),
3. fields of study (science and non science-oriented),
4. English language learning experiences (more experienced and less experienced), and
5. proficiency levels (high, moderate, and low).

In illustrating the results of data analysis, a top-down order has been adopted; that is, variations in frequency of students' overall reported strategy use according to the five variables will be primarily explored. Then the variation in frequency of learning strategy use in the four main categories: 1) Preparing Oneself for Classroom Lessons (Prep), 2) Understanding while Studying in Class (Under), 3) Improving One's Language Skills (Imp), and 4) Expanding One's General Knowledge of English (Exp) will be presented. This is followed by an examination of individual learning strategy use with a relation to the five variables. The main data analyses carried out here are an analysis of variance (ANOVA), and chi-square tests:

1. Analysis of variance (ANOVA) was undertaken to determine patterns of variation in students' overall reported strategy use, and use of strategies in the four main categories, in terms of the five variables. If there is a significant difference found in the result of ANOVA, the post-hoc Scheffé Test is used to help indicate which pairs of the groups under the variables contribute to the overall differences.
2. Chi-square tests were employed to discover the significant variation patterns in students' reported strategy use at the individual item level. These tests help check all strategy items for significant variations by the five variables. Also, they compare the actual frequencies with which students gave different responses of the four-point rating scale, a method of analysis closer to the raw data than comparisons based on average responses for each item. For the Chi-square tests, responses of 0 and 1 (Never and Sometimes) are consolidated into a single "low strategy use" category, and responses of 2 and 3 (Often and Always or almost always) are consolidated into a single "high strategy use" category. The purpose of consolidating the four response levels into two categories of strategy use is to

obtain cell size with expected valued high enough to ensure a valid analysis (Green and Oxford, 1995: 271). Table 6.1 below illustrates the levels of data analysis of this chapter.

Table 6.1: Analysis of Variations in Frequency of Levels of Strategy Use

Level 1	Overall Reported Strategy Use
Level 2	Use of Strategies in the Four Main Categories
Level 3	Use of Strategies in Each Subcategory of the Four Categories

6.2 Variation in Students' Overall Reported Strategy Use

In the first level of the analysis of variance, students' overall reported strategy use shows significant variation according to all of the five variables as illustrated in the ANOVA results in Table 6.1 below. Each table consists of the variables, mean scores of strategy use (\bar{X}), standard deviation (S.D.), Significance Level, and Pattern of Variation in frequency of strategy use (if a significant variation was found at all).

Table 6.2: A Summary of Variation in Frequency of Students' Overall Reported Strategy Use

GENDER	Male (n = 343)		Female (n = 791)		Comments			
	Mean	S.D.	Mean	S.D.	Significance Level	Pattern of Variation		
Overall Strategy Use	.88	.52	1.04	.47	p<.01	Female > Male		
TYPES OF PROGRAM	International (n = 271)		Regular (n = 857)		Comments			
	Mean	S.D.	Mean	S.D.	Significance Level	Pattern of Variation		
Overall Strategy Use	1.18	.51	.94	.47	p<.01	International > Regular		
FIELDS OF STUDY	Science (n = 488)		Non-Science (n = 646)		Comments			
	Mean	S.D.	Mean	S.D.	Significance Level	Pattern of Variation		
Overall Strategy Use	.86	.46	1.10	.49	p<.01	Non-Science > Science		
ENGLISH LEARNING EXPERIENCES	Less Experienced (n = 127)		More Experienced (n = 1,005)		Comments			
	Mean	S.D.	Mean	S.D.	Significance Level	Pattern of Variation		
Overall Strategy Use	.82	.48	1.02	.49	p<.01	More Experienced > Less Experienced		
PROFICIENCY LEVEL	High (n = 27)		Moderate (n = 676)		Low (n = 427)		Comments	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Significance Level	Pattern of Variation
Overall Strategy Use	1.21	.71	1.09	.48	.83	.45	p<.01	High > Low Moderate > Low

According to Table 6.2, the ANOVA results reveal that the frequency of students' overall strategy use varied significantly according all five variables ($p < .01$).

In respect to gender of the students, the post-hoc Scheffé Test shows significant differences between males and females. The mean scores were .88 and 1.04 respectively. This pinpoints that on the whole, female students reported employing language learning strategies significantly more frequently than males.

In terms of types of academic programs, significant variations in the overall strategy use occur between students studying in international programs and regular programs (mean scores were 1.18 and .94 respectively). This indicates that students in the international programs reported greater overall strategy use than those in the regular programs.

Significant variations were found in the frequency of students' overall strategy use with regard to their fields of study; namely science and non-science-oriented. The mean scores were .86 and 1.10 respectively. This means students in the field of non-science-oriented reported employing overall language learning strategies significantly more frequently than those in the field of science-oriented.

An overall strategy use in terms of English language learning experiences, the result in Table 6.2 demonstrates that significant variations of the frequency of students' overall strategy use exist between less and more experienced students (means scores were .82 and 1.02 respectively). It can be interpreted that students with more English learning experiences (more than 8 years of language learning) reported employing overall language learning strategies significantly more frequently than those with less English learning experiences (8 years of language learning or less).

Regarding the last investigated variable, English proficiency levels, students' language proficiency levels were determined according to their self-rating proficiency; namely 'high', 'moderate', and 'low' categories. Significant variations in the overall strategy use occur among high, moderate, and low proficiency students (mean scores were 1.21, 1.09, and .83 respectively). These results display that students with high proficiency level reported employing overall strategy use significantly more frequently than moderate and low proficiency level students, while

moderate proficiency level students employed language learning strategies significantly more frequently than low proficiency level students.

6.3 Variation in Frequency of Students' Use of Strategies in the Four Main Categories

The language learning strategies for the present investigation have been classified into four main groups, i.e. 1) Preparing Oneself for Classroom Lessons, 2) Understanding while Studying in Class, 3) Improving One's Language Skills, and 4) Expanding One's General Knowledge of English. The ANOVA results demonstrate that the frequency of students' use of learning strategies among those four categories varied significantly according to their gender, types of academic programs, fields of study, English learning experiences, and English proficiency levels, see more information in the Tables 6.3-6.7 below.

6.3.1 Variation in Frequency of Students' Use of Strategies in the Four Main Categories According to the Gender of Students

Table 6.3 below shows the frequency of students' use of strategies in the four main categories varied significantly according to the gender of students. Female students reported employing language learning strategies more frequently than their male counterparts in order to prepare themselves for classroom lessons, understand while studying in class, improve their language skills, and expand their general knowledge of English.

Table 6.3: Variation in Frequency of Students' Use of Strategies in the Four Main Categories According to the Gender of Students

Strategy Category	Gender				Comments	
	Male (n = 343)		Female (n = 791)		Significance Level	Pattern of Variation
	Mean	S.D.	Mean	S.D.		
Prep Category	.73	.63	.81	.62	p<.05	Female > Male
Under Category	1.09	.68	1.34	.63	p<.001	Female > Male
Imp Category	.92	.68	1.10	.63	p<.001	Female > Male
Exp Category	.79	.61	.91	.59	p<.05	Female > Male

6.3.2 Variation in Frequency of Students' Use of Strategies in the Four Main Categories According to Types of Academic Programs

The results of ANOVA in Table 6.4 below reveal significant variation in the frequency of students' use of language learning strategies to achieve the four main purposes according to types of academic programs, specifically international and regular programs. Students studying in international programs reported more frequent use of strategies in the four main categories than those studying in regular programs in order to prepare themselves for classroom lessons, understand the lessons while studying in class, improve their language skills, and expand their general knowledge of English.

Table 6.4: Variation in Frequency of Students' Use of Strategies in the Four Main Categories According to Types of Academic Programs

Strategy Category	Types of Academic Programs				Comments	
	International (n = 271)		Regular (n = 857)		Significance Level	Pattern of Variation
	Mean	S.D.	Mean	S.D.		
Prep Category	.97	.66	.73	.60	p<.001	International > Regular
Under Category	1.39	.70	1.22	.63	p<.001	International > Regular
Imp Category	1.30	.65	.97	.64	p<.001	International > Regular
Exp Category	1.06	.60	.82	.58	p<.001	International > Regular

6.3.3 Variation in Frequency of Students' Use of Strategies in the Four Main Categories According to Fields of Study

The results of ANOVA in Table 6.5 below reveal significant variation in the frequency of students' use of language learning strategies in the four main categories according to fields of study, namely science and non-science-oriented. Students studying in the field of non-science-oriented reported more frequent use of strategies in the four main categories than those studying in the field of science-oriented in order to prepare themselves for classroom lessons, understand while studying in class, improve their language skills, and expand their general knowledge of English.

Table 6.5: Variation in Frequency of Students' Use of Strategies in the Four Main Categories According to Fields of Study

Strategy Category	Fields of Study				Significance Level	Comments Pattern of Variation
	Science (n = 488)		Non-Science (n = 646)			
	Mean	S.D.	Mean	S.D.		
Prep Category	.69	.61	.86	.62	p<.001	Non-Science > Science
Under Category	1.16	.62	1.34	.67	p<.001	Non-Science > Science
Imp Category	.84	.60	1.20	.65	p<.001	Non-Science > Science
Exp Category	.76	.56	.96	.60	p<.001	Non-Science > Science

6.3.4 Variation in Frequency of Students' Use of Strategies in the Four Main Categories According to English Learning Experiences

The results of ANOVA in Table 6.6 below reveal significant variation in the frequency of students' use of language learning strategies in the four main categories according to English learning experiences, classified into more and less learning experiences (more or less than 8 years of learning). Students with more experienced learning in studying English more than 8 years reported more frequent use of strategies in the four main categories than those with less experienced learning in studying English 8 years or less in order to prepare themselves for classroom lessons,

understand while studying in class, improve their language skills, and expand their general knowledge of English.

Table 6.6: Variation in Frequency of Students' Use of Strategies in the Four Main Categories According to English Learning Experiences

Strategy Category	English Learning Experiences				Significance Level	Comments Pattern of Variation
	More Experienced (n = 1,005)		Less Experienced (n = 127)			
	Mean	S.D.	Mean	S.D.		
Prep Category	.80	.63	.66	.58	p<.05	More Experienced > Less Experienced
Under Category	1.29	.65	1.09	.66	p<.05	More Experienced > Less Experienced
Imp Category	1.07	.65	.86	.63	p<.01	More Experienced > Less Experienced
Exp Category	.90	.59	.65	.55	p<.001	More Experienced > Less Experienced

6.3.5 Variation in Frequency of Students' Use of Strategies in the Four

Main Categories According to English Proficiency

The results of ANOVA in Table 6.7 below reveal significant variation in the frequency of students' use of language learning strategies in the four main categories according to English language proficiency levels, grouped into three categories: 'high', 'moderate', and 'low' according to students' self-rating proficiency. The post-hoc Scheffé Test shows significant differences among those three categories of language proficiency levels. Students with high-proficiency level reported more frequent use of strategies in the four main categories than those with lower language proficiency levels. It can also be observed that students at the two higher levels of language proficiency (high and moderate) reported employing strategies to understand while studying in class, and improve their language skills more frequently than those used to prepare themselves for classroom lessons, and expand their general knowledge of English. While students at the low level of language proficiency

reported employing strategies to understand while studying in class most frequently when compared with the other strategies employed to prepare themselves for classroom lessons, improve their language skills, and expand their general knowledge of English.

Table 6.7: Variation in Frequency of Students' Use of Strategies in the Four Main Categories According to English Proficiency

Strategy Category	English Proficiency						Comments	
	High (n=27)		Moderate (n=676)		Low (n=427)		Significance Level	Pattern of Variation
	Mean	S.D.	Mean	S.D.	Mean	S.D.		
Prep Category	1.05	.86	.85	.64	.67	.55	p<.001	High>Low Moderate > Low
Under Category	1.17	.76	1.34	.64	1.15	.65	p<.001	Moderate > Low
Imp Category	1.43	.82	1.19	.65	.80	.57	p<.001	High>Low Moderate > Low
Exp Category	1.19	.84	.98	.58	.69	.55	p<.001	High>Low Moderate > Low

In summary, when looking at the use of strategies in the four main categories based on the results of ANOVA, we can gain a clearer picture of students' strategy use in this level. The results with significant variations lead to discover that the five investigated variables including gender of the students, types of academic programs, fields of study, language learning experiences, and language proficiency levels are significantly related to Thai public university freshmen' overall use of language learning strategies

In an overall picture, female or male students, students studying in either international or regular programs, science or non science-oriented fields of study, more or less experienced language learning, and high or low English proficiency levels, they all appear to employ their overall language learning strategies in more or less the same way; that is, slightly lower use of self-preparation for classroom lessons,

but apparently higher use of strategies for understanding while studying in class, improving their language skills, and expanding their general knowledge of English respectively.

6.4 Variation in Use of Individual Learning Strategies

Sections 6.2-6.3 discussed significant variations in frequency of students' overall strategy use across the entire survey, and use of strategies in the four main categories. Next, in this section the results of chi-square tests employed to determine patterns of the significant variations in students' reported strategy use at the individual strategy item level will be demonstrated. These chi-square tests were used to check all of the individual strategy items for significant variations by the five independent variables. To demonstrate a significant variation, the percentage of students in terms of each variable reported high strategy use (2 and 3 in the strategy questionnaire), and the observed chi-square (χ^2) value which shows the strengths of variation in use of each individual strategy were identified. The individual strategies were demonstrated here in order of the percentage of students reporting high use (2 and 3 in the strategy questionnaire), ranking from highest to lowest. This leads to easier understanding a picture of the language learning strategies which were reported to be frequently used, analysed in terms of each of the five variables. The pattern(s) of significant variations of the particular strategy item was (were) included in a brief discussion with each variable.

6.4.1 Variation in Students' Reported Use of Individual Learning Strategies According to the Gender of Students

As mentioned in Sections 6.2 and 6.3, significant variations in frequency of students' overall strategy use, use of strategies in the four main categories, varied according to the gender of students. Here the individual learning strategies are considered in terms of variations in frequency of use, as well as pattern of variation of use. The results of chi-square tests reveal that almost half of the learning strategies in this strategy inventory (21 out of 44) varied significantly according to students' gender.

An overall picture of significant variations in strategy use at an individual strategy level is shown in Table 6.8 below. It appears that from the results of the chi-square tests indicate the major significant variations in use of individual learning strategies in terms of students' gender, with a greater percentage of female than male students reporting high use of 21 learning strategies from all four main categories. Almost half of them, i.e. 10 out of 21, are strategies employed by female students to understand the lessons while studying in class through inter-personal and intra-personal interactive ways e.g. double checking what is learned with friends/classmates 70.5 per cent (UnderINTER 2), taking notes while studying 60.3 per cent (UnderINTRA 3), and trying to understand English by translating into Thai 57.8 per cent (UnderINTRA 5).

Table 6.8: Variation in Students' Reported Use of Individual Learning Strategies According to the Gender of Students

Individual Learning Strategies (used more by females – 21 strategies)	% of high use (2 or 3)		Observed χ^2
	Females	Males	
UnderINTER 2 Double checking what is learned with friends/classmates	70.5	51.9	$\chi^2 = 36.5$ p<.001
PrepA 3 Doing homework or assignments	62.1	48.4	$\chi^2 = 18.4$ p<.001
UnderINTRA 3 Taking notes while studying	60.3	45.2	$\chi^2 = 22.2$ p<.001
UnderINTRA 5 Trying to understand English by translating into Thai	57.8	51.3	$\chi^2 = 4.1$ p<.05
ExpNM 5 Using a dictionary for vocabulary enrichment	57.5	42.0	$\chi^2 = 23.2$ p<.001
UnderINTRA 4 Thinking to oneself along with the teacher's instruction	55.6	48.7	$\chi^2 = 4.6$ p<.05
UnderINTER 5 Participating in the classroom activities	52.8	44.0	$\chi^2 = 7.4$ p<.001
UnderINTRA 6 Consulting a dictionary	42.2	25.4	$\chi^2 = 29.1$ p<.001
UnderINTER 1 Asking the teacher for clarification	39.9	29.4	$\chi^2 = 11.4$ p<.001
ImpM 6 Watching television programs in English	39.7	27.4	$\chi^2 = 15.7$ p<.001
ImpM 9 Imitating a native speaker from media	39.1	28.0	$\chi^2 = 12.8$ p<.001
ImpM 7 Listening to English songs / cassette tapes of English conversations	37.9	30.9	$\chi^2 = 5.1$ p<.05
ExpNM 1 Having extra tutorials	36.3	24.8	$\chi^2 = 14.4$ p<.001
UnderINTER 3 Joining a language study group	35.0	26.5	$\chi^2 = 7.9$ p<.01
UnderINTRA 1 Trying to get a seat in the front row	33.0	24.8	$\chi^2 = 7.6$ p<.01
UnderINTRA 2 Avoiding talking with other students while studying	31.5	23.9	$\chi^2 = 6.6$ p<.01
ImpNM 3 Talking to oneself in English	30.6	22.7	$\chi^2 = 7.2$ p<.01
PrepA 1 Reviewing own notes/summary	29.5	20.4	$\chi^2 = 10$ p<.01
ExpNM 2 Translating English news, song lyrics, poems, etc. into Thai	24.7	19.2	$\chi^2 = 4.0$ p<.05
ExpNM 4 Having own language learning notebooks	21.4	15.2	$\chi^2 = 5.9$ p<.05
ImpNM 1 Practicing writing with English texts	20.4	13.4	$\chi^2 = 7.7$ p<.05

6.4.2 Variation in Students' Reported Use of Individual Learning

Strategies According to Types of Programs

The chi-square results show major significant variations in frequency of use of 35 learning strategies according to types of academic programs. The results of ANOVA present significant variations in frequency of students' use of individual learning strategies in the four main categories found in a strong association with this variable. That is, students studying in international programs reporting more frequent use of these learning strategies than those studying in regular programs. Table 6.9 below demonstrates individual strategies which exhibit significant variations in terms of types of programs.

Table 6.9: Variation in Students' Reported Use of Individual Learning Strategies According to Types of Programs

Individual Learning Strategies (used more by international programs – 35 strategies)	% of high use (2 or 3)		Observed χ^2
	International	Regular	
UnderINTER 2 Double checking what is learned with friends/classmates	74.5	61.8	$\chi^2 = 14.6$ p<.001
PrepA 3 Doing homework or assignments	67.9	55.0	$\chi^2 = 14.2$ p<.001
ExpNM 5 Using a dictionary for vocabulary enrichment	62.4	49.9	$\chi^2 = 12.7$ p<.001
UnderINTER 6 Participating in the classroom activities	60.1	47.3	$\chi^2 = 13.7$ p<.001
ExpM 3 Seeking out information in English through surfing the Internet	49.8	32.1	$\chi^2 = 28.0$ p<.001
ImpM 6 Watching television programs in English	48.7	32.0	$\chi^2 = 25.0$ p<.001
PrepB 3 Attempting to attend the class	47.6	37.2	$\chi^2 = 9.3$ p<.01
ImpM 5 Watching English-speaking films without looking at the Thai subtitles	47.6	34.0	$\chi^2 = 16.4$ p<.001
ImpM 3 Reading any English-printed resources	46.5	33.5	$\chi^2 = 15.0$ p<.001
ImpM 9 Imitating a native speaker from media	46.1	32.3	$\chi^2 = 17.1$ p<.001

Table 6.9 (contd): Variation in Students' Reported Use of Individual Learning Strategies According to Types of Programs

Individual Learning Strategies (used more by international programs – 35 strategies)	% of high use (2 or 3)		Observed χ^2
	International	Regular	
ImpM 7 Listening to English songs / cassette tapes of English conversations	42.8	33.6	$\chi^2 = 7.6$ p<.01
ImpNM 3 Talking to oneself in English	42.4	23.7	$\chi^2 = 35.7$ p<.001
ImpM 4 Contacting with Thai or foreign friends through emails, instant messages (MSN) or SMS texts with computers or mobiles	41.0	23.8	$\chi^2 = 30.1$ p<.001
ImpM 1 Reading on-line materials	39.5	25.2	$\chi^2 = 20.5$ p<.001
ImpM 2 Reading printed materials	38.4	22.1	$\chi^2 = 28.5$ p<.001
UnderINTRA 1 Trying to get a seat in the front row	36.5	28.6	$\chi^2 = 6.1$ p<.001
ImpNM 2 Conversing in English with teachers, peers, siblings, or foreigners	35.8	18.2	$\chi^2 = 36.6$ p<.001
PrepA 1 Reviewing own notes/summary	33.9	24.6	$\chi^2 = 9.1$ p<.01
ExpM 2 Playing games for vocabulary enrichment	29.2	22.4	$\chi^2 = 5.1$ p<.05
ExpNM 2 Translating English news, song lyrics, poems, etc. into Thai	28.0	21.5	$\chi^2 = 5.0$ p<.05
ImpM 8 Listening to radio programs in English	27.3	16.3	$\chi^2 = 16.1$ p<.001
ExpNM 3 Giving tutorials to others	26.9	15.9	$\chi^2 = 16.7$ p<.001
ExpNM 4 Having own language learning notebooks	25.8	17.5	$\chi^2 = 9.1$ p<.01
ImpNM 1 Practicing writing with English texts	24.4	16.2	$\chi^2 = 9.2$ p<.01
PrepB 4 Doing revision of the previous lessons	22.5	16.8	$\chi^2 = 4.5$ p<.05
PrepB 2 Preparing oneself physically	18.8	11.2	$\chi^2 = 10.54$ p<.01
ExpM 1 Practicing English with a commercially packaged English program	17.3	9.2	$\chi^2 = 13.7$ p<.001
PrepA 5 Practicing what is learned in class with the teacher	16.6	9.2	$\chi^2 = 11.5$ p<.001
PrepA 4 Personally approaching the teacher by asking the teacher for clarification	16.2	7.1	$\chi^2 = 20.3$ p<.001
ExpNM 6 Practicing general English with family members	16.2	10.4	$\chi^2 = 6.8$ p<.01

Table 6.9 (contd): Variation in Students' Reported Use of Individual Learning Strategies According to Types of Programs

Individual Learning Strategies (used more by international programs – 35 strategies)	% of high use (2 or 3)		Observed χ^2
	International	Regular	
ExpNM 7 Joining leisure or social activities to practice and improve English	15.5	9.2	$\chi^2 = 8.5$ p<.01
PrepA 6 Discussing L2 learning problems with the teacher	14.4	6.7	$\chi^2 = 15.8$ p<.001
ExpNM 2 Taking job to practice English	11.8	6.1	$\chi^2 = 9.8$ p<.01
PrepA 2 Attempting to revise today's lessons	10.7	7.0	$\chi^2 = 3.9$ p<.05

The results of the chi-square tests in Table 6.8 reveal that significant variations in use of 35 strategies were found in relation to this variable, with a greater percentage of students studying in international programs reporting high frequency of use of all mentioned 35 strategies than those studying in regular programs. It can be said that approximately 80 per cent of the individual language strategies (35 out of 44) of the four main categories in the strategy inventory were used more by international program students. The results also show that the strategies which more than half of the international program students reported employing at a high use level vary, with 74.5 per cent reporting employing strategy to help understand what is learned in class through inter-personal interaction by double checking what is learned with friends in class (UnderINTER 2) and 60.1 per cent participating in the classroom activities (UnderINTER 6), 67.9 per cent reporting using strategy for after class preparation by doing homework or assignments (PrepA 3), and 62.4 per cent reporting using strategy for expanding general knowledge of English by using a dictionary for vocabulary enrichment (ExpNM 5). More or less the same way of using individual strategies of regular program students, the four highest percentages reported employing the same

strategies used by international program students; that is, 61.8 per cent reporting employing strategy to double check what is learned with friends in class (UnderINTER 2), 55.0 per cent reporting using strategy to do homework or assignments (PrepA 3), 49.9 per cent reporting strategy of using a dictionary for vocabulary enrichment (ExpNM 5), and 47.3 per cent participating in the classroom activities (UnderINTER 6).

6.4.3 Variation in Students' Reported Use of Individual Learning Strategies According to Fields of Study

The findings presented in Table 6.10 below indicate that students studying in the field of non science-oriented differ from those studying in the field of science-oriented using language learning strategies to achieve the purposes of strategy use in the four main categories. The results of the chi-square tests reveal that significant variations in use of 35 strategies were found in relation to this variable, with a greater percentage of students studying in the non science-oriented field reporting high frequency of use of all 35 strategies than those studying the science-oriented field. It appears that approximately 80 per cent of the individual language strategies (35 out of 44) of the four main categories in the strategy inventory were used more by non science-oriented students. The results also show that the strategies most non science-oriented students reported employing at a high use level were those for preparing oneself after class by doing homework or assignments, and understanding while studying in class with and without personal interaction; i.e. 62.1 per cent reported doing homework or assignments (PrepA 3), 70 per cent employed double checking what is learned with friends in class (UnderINTER 2), 57.4 per cent thinking to oneself along with the teacher's instruction (UnderINTRA 4), and 55.3 per cent

participating in the classroom activities (UnderINTER 6). Similar to the use of individual strategies of science-oriented students, more than half of them reported employing the same strategies used by non science-oriented students; that is, 58.2 per cent reporting employing strategy to double check what is learned with friends in class (UnderINTER 2), and 52.5 per cent reporting using strategy to do homework or assignments (PrepA 3).

Table 6.10: Variation in Students' Reported Use of Individual Learning Strategies According to Fields of Study

Individual Learning Strategies (used more by non science-oriented – 35 strategies)	% of high use (2 or 3)		Observed χ^2
	Non-Science	Science	
UnderINTER 2 Double checking what is learned with friends/classmates	70.0	58.2	$\chi^2 = 16.9$ p<.001
PrepA 3 Doing homework or assignments	62.1	52.5	$\chi^2 = 10.5$ p<.001
ExpNM 5 Using a dictionary for vocabulary enrichment	57.9	46.1	$\chi^2 = 15.5$ p<.001
UnderINTRA 4 Thinking to oneself along with the teacher's instruction	57.4	48.4	$\chi^2 = 9.2$ p<.01
UnderINTER 6 Participating in the classroom activities	55.3	43.4	$\chi^2 = 15.5$ p<.001
ImpM 5 Watching English-speaking films without looking at the Thai subtitles	45.8	25.8	$\chi^2 = 47.6$ p<.001
ImpM 6 Watching television programs in English	45.7	23.2	$\chi^2 = 61.2$ p<.001
PrepA 2 Attempting to attend the class	45.0	32.4	$\chi^2 = 18.7$ p<.001
ImpM 9 Imitating a native speaker from media	44.9	23.6	$\chi^2 = 55.1$ p<.001
ImpM 3 Reading any English-printed resources	41.8	29.5	$\chi^2 = 18.1$ p<.001
ImpM 7 Listening to English songs / cassette tapes of English conversations	41.8	27.9	$\chi^2 = 23.5$ p<.001
ExpM 3 Seeking out information in English through surfing the Internet	41.2	29.5	$\chi^2 = 16.4$ p<.001
UnderINTER 1 Asking the teacher for clarification	39.6	33.0	$\chi^2 = 5.3$ p<.05
ExpNM 1 Having extra tutorials	37.9	26.0	$\chi^2 = 17.9$ p<.001
UnderINTER 3 Joining a language study group	37.2	26.2	$\chi^2 = 15.1$ p<.001

Table 6.10 (contd): Variation in Students' Reported Use of Individual Learning Strategies According to Fields of Study

Individual Learning Strategies (used more by non science-oriented – 35 strategies)	% of high use (2 or 3)		Observed χ^2
	Non-Science	Science	
ImpM 1 Reading on-line materials	36.2	18.4	$\chi^2 = 43.1$ p<.001
ImpNM 3 Talking to oneself in English	36.1	17.8	$\chi^2 = 45.7$ p<.001
ImpM 4 Contacting with Thai or foreign friends through emails, instant messages (MSN) or SMS texts with computers or mobile phones	35.6	17.6	$\chi^2 = 44.7$ p<.001
UnderINTRA 1 Trying to get a seat in the front row	34.7	25.0	$\chi^2 = 12.2$ p<.001
ImpM 2 Reading printed materials	33.6	15.6	$\chi^2 = 47.1$ p<.001
PrepA 1 Reviewing own notes/summary	29.9	22.5	$\chi^2 = 7.6$ p<.01
ImpNM 2 Conversing in English with teachers, peers, siblings, or foreigners	29.3	13.3	$\chi^2 = 40.6$ p<.001
ExpNM 2 Translating English news, song lyrics, poems, etc. into Thai	25.9	19.3	$\chi^2 = 6.8$ p<.05
ImpM 8 Listening to radio programs in English	24.6	11.5	$\chi^2 = 31.2$ p<.001
ExpNM 4 Having own language learning notebooks	24.0	13.5	$\chi^2 = 19.4$ p<.001
ExpNM 3 Giving tutorials to others	23.7	11.9	$\chi^2 = 25.6$ p<.001
ImpNM 1 Practicing writing with English texts	21.8	13.5	$\chi^2 = 12.8$ p<.001
PrepB 4 Doing revision of the previous lessons	21.4	13.9	$\chi^2 = 10.3$ p<.01
ExpNM 7 Joining leisure or social activities to practice and improve English	14.4	6.1	$\chi^2 = 19.6$ p<.001
ExpNM 6 Practicing general English with family members	14.2	8.4	$\chi^2 = 9.2$ p<.001
ExpM 1 Practicing English with a commercially packaged English program	13.2	8.4	$\chi^2 = 6.4$ p<.01
PrepA 5 Practicing what is learned in class with the teacher	12.7	8.8	$\chi^2 = 4.3$ p<.05
PrepA 4 Personally approaching the teacher by asking the teacher for clarification	10.7	7.6	$\chi^2 = 3.2$ p<.05
PrepA 6 Discussing L2 learning problems with the teacher	10.2	6.1	$\chi^2 = 5.9$ p<.01
ExpNM 8 Taking job to practice English	9.3	4.9	$\chi^2 = 7.7$ p<.01

6.4.4 Variation in Students' Reported Use of Individual Learning Strategies According to English Language Learning Experiences

The findings presented in Table 6.11 below indicate that students with more experiences in language learning (more than 8 years) differ from those with less experiences in language learning (8 years or less). That is, they used language learning strategies to achieve the purposes of strategy use in the four main categories. The results of the chi-square tests reveal that significant variations in use of 26 strategies were found in relation to this variable, with a greater percentage of students with more language learning experiences reporting high frequency of use of all mentioned 26 strategies than those with less language learning experiences.

The results indicate that more than half of students with more language learning experiences reported employing at a high use level vary, with 66.8 per cent reporting employing strategy to help understand what is learned in class by double checking what is learned with friends in class and 52.0 per cent reporting employing participating in the classroom activities; while to achieve the same purpose of L2 learning students reported using intra-personal interaction - 56.9 per cent taking notes while studying (UnderINTRA 3), and 54.8 per cent thinking to oneself with the teacher's instruction (UnderINTRA 4),. In addition, almost the same number of them employed at high use of after class preparation strategy; i.e. 59.5 per cent doing homework or assignments (PrepA 3). Similar to strategy use of students with less language learning experiences, among the top strategies they used were those for understanding while studying in class e.g. double checking what is learned with friends/classmates (UnderINTER 2), taking notes while studying (UnderINTRA 3),

thinking to oneself along with the teacher's instruction (UnderINTRA 4), and participating in the classroom activities (UnderINTER 6).

Table 6.11: Variation in Students' Reported Use of Individual Learning Strategies According to English Language Learning Experiences

Individual Learning Strategies (used more by more experienced – 26 strategies)	% of high use (2 or 3)		Observed χ^2
	More Experienced	Less Experienced	
UnderINTER 2 Double checking what is learned with friends/classmates	66.8	49.6	$\chi^2 = 14.6$ p<.001
PrepA 3 Doing homework or assignments	59.5	44.9	$\chi^2 = 9.9$ p<.01
UnderINTRA 3 Taking notes while studying	56.9	47.2	$\chi^2 = 4.3$ p<.05
UnderINTRA 4 Thinking to oneself along with the teacher's instruction	54.8	44.1	$\chi^2 = 5.2$ p<.05
ExpNM 5 Using a dictionary for vocabulary enrichment	54.7	37.8	$\chi^2 = 13.0$ p<.001
UnderINTER 6 Participating in the classroom activities	52.0	35.4	$\chi^2 = 12.4$ p<.001
PrepB 3 Attempting to attend the class	40.9	28.3	$\chi^2 = 7.4$ p<.01
ImpM 5 Watching English-speaking films without looking at the Thai subtitles	39.0	23.6	$\chi^2 = 11.4$ p<.001
UnderINTRA 6 Consulting a dictionary	38.3	28.3	$\chi^2 = 4.8$ p<.05
ExpM 3 Seeking out information in English through surfing the Internet	37.9	22.0	$\chi^2 = 12.3$ p<.001
ImpM 6 Watching television programs in English	37.6	22.8	$\chi^2 = 10.7$ p<.01
ImpM 3 Reading any English-printed resources	37.5	29.1	$\chi^2 = 3.4$ p<.05
ImpM 9 Imitating a native speaker from media	37.3	22.8	$\chi^2 = 10.3$ p<.01
ImpM 7 Listening to English songs / cassette tapes of English conversations	36.9	26.8	$\chi^2 = 5.0$ p<.05
ExpNM 1 Having extra tutorials	34.7	17.3	$\chi^2 = 15.5$ p<.001
ImpM 1 Reading on-line materials	30.3	15.0	$\chi^2 = 13.1$ p<.001
ImpNM 3 Talking to oneself in English	29.5	18.9	$\chi^2 = 6.2$ p<.01
ImpM 4 Contacting with Thai or foreign friends through emails, instant messages (MSN) or SMS texts with computers or mobile phones	28.8	20.5	$\chi^2 = 3.9$ p<.05
PrepA 1 Reviewing own notes/summary	28.0	17.3	$\chi^2 = 6.5$ p<.01

Table 6.11 (contd): Variation in Students' Reported Use of Individual Learning Strategies According to English Language Learning Experiences

Individual Learning Strategies (used more by more experienced – 26 strategies)	% of high use (2 or 3)		Observed χ^2
	More Experienced	Less Experienced	
ImpM 2 Reading printed materials	26.9	18.1	$\chi^2 = 4.5$ p<.05
ExpM 2 Playing games for vocabulary enrichment	24.7	17.3	$\chi^2 = 3.4$ p<.05
ExpNM 2 Translating English news, song lyrics, poems, etc. into Thai	24.0	15.0	$\chi^2 = 5.2$ p<.05
ImpNM 2 Conversing in English with teachers, peers, siblings, or foreigners	23.3	15.7	$\chi^2 = 3.7$ p<.05
ExpNM 4 Having own language learning notebooks	20.7	10.2	$\chi^2 = 7.9$ p<.05
PrepB 4 Doing revision of the previous lessons	19.1	11.0	$\chi^2 = 4.9$ p<.05
ExpM 1 Practicing English with a commercially packaged English program	11.7	6.3	$\chi^2 = 3.4$ p<.05

6.4.5 Variation in Students' Reported Use of Individual Learning

Strategies According to English Language Proficiency

An overall picture of significant variations in strategy use at an individual strategy level is shown in Tables 6.12 and 6.13 below. The results of the chi-square tests reveal that 39 out of 44 learning strategies across the strategy questionnaire varied significantly according to students' self-rating proficiency levels. When comparing with the other four variables, this variable seems to have the strongest relationships with students' choices of strategy use, with a greater proportion of significant variations in students' use of individual strategies across the strategy inventory found to be related to their proficiency levels.

For clearer understanding, the 39 individual strategies showing significant variation were classified as a negative (low>moderate>high), positive (high>moderate>low) pattern of variation, or mixed (moderate>low>high). The

results display that 35 individual strategies were in the positive pattern of variation; while only four individual strategies were in the mixed pattern of variation; moderate>low>high. These four strategies include strategies employed double checking what is learned with friends/classmates (UnderINTER 2) 55.6 per cent, doing homework or assignments (PrepA 3) 51.9 per cent, taking notes while studying (UnderINTRA 3) 44.4 per cent, and understanding English by translating into Thai (UnderINTRA 5) 44.4 per cent. This could be inferred that moderate and low proficiency students seem to be more alert and diligent in classroom-related learning strategies in order to prepare themselves for classroom lessons and to understand the lessons while studying in class through both inter-personal and intra-personal interactions. In addition, they also reported higher use of preparing themselves after class by doing homework or assignments (PrepA 3).

Opposite to high proficiency students, although these students reported greater use of strategy than lower proficiency students, the top three strategies were reportedly used to improve their language skills rather than to prepare for classroom or understand classroom lessons; i.e. more than half of them reported employing strategies to improve their listening and speaking skills of English with media utilization e.g. 70.4 per cent watching English-speaking films (ImpM 5), 63.0 per cent watching television programs in English (ImpM 6), and another 63.0 per cent imitating a native speaker from media (ImpM 9).

Table 6.12: Variation in Students' Reported Use of Individual Learning Strategies According to English Language Proficiency

Individual Learning Strategies (used more by high proficiency students – 35 strategies)	% of high use (2 or 3)			Observed χ^2
	High	Moderate	Low	
ImpM 5 Watching English-speaking films without looking at the Thai subtitles	70.4	45.1	23.0	$\chi^2 = 67.9$ p<.001
ImpM 6 Watching television programs in English and intonations	63.0	43.8	22.2	$\chi^2 = 61.2$ p<.001
ImpM 9 Imitating a native speaker from media	63.0	41.6	24.8	$\chi^2 = 40.9$ p<.001
ExpNM 5 Using a dictionary for vocabulary enrichment	63.0	56.2	46.8	$\chi^2 = 10.4$ p<.01
UnderINTER 6 Participating in the classroom activities	59.3	55.6	41.2	$\chi^2 = 22.6$ p<.001
UnderINTRA 4 Thinking to oneself along with the teacher's instruction	59.3	59.2	44.0	$\chi^2 = 24.5$ p<.001
ImpM 1 Reading on-line materials	59.3	36.8	13.8	$\chi^2 = 80.4$ p<.001
ExpM 3 Seeking out information in English through surfing the Internet	59.3	44.1	22.0	$\chi^2 = 61.7$ p<.001
ImpM 2 Reading printed materials	55.6	32.5	13.6	$\chi^2 = 61.6$ p<.001
ImpM 4 Contacting with Thai or foreign friends through emails, instant messages (MSN) or SMS texts with computers or mobile phones	55.6	35.2	14.5	$\chi^2 = 66.2$ p<.001
PrepB 3 Attempting to attend the class	51.9	44.1	31.6	$\chi^2 = 18.8$ p<.001
ImpNM 1 Practice writing with English texts	48.1	21.4	11.2	$\chi^2 = 35.0$ p<.001
ImpM 7 Listening to English songs / cassette tapes of English conversations	48.1	42.9	24.1	$\chi^2 = 41.9$ p<.001
PrepA 1 Reviewing own notes/summary	44.4	30.8	19.0	$\chi^2 = 23.1$ p<.001
ImpNM 2 Conversing in English with teachers, peers, siblings, or foreigners	44.4	29.3	10.1	$\chi^2 = 63.3$ p<.001
ImpM 3 Reading any English-printed resources	44.4	43.5	25.1	$\chi^2 = 39.1$ p<.001
UnderINTRA 1 Trying to get a seat in the front row	40.7	33.7	24.6	$\chi^2 = 11.8$ p<.01
UnderINTER 3 Join a language study group	40.7	35.4	27.4	$\chi^2 = 8.4$ p<.05
ExpNM 3 Give tutorials to others like junior students	40.7	23.1	10.3	$\chi^2 = 37.0$ p<.001
ExpNM 6 Practice general English with your family members	40.7	14.5	5.6	$\chi^2 = 42.2$ p<.001

Table 6.12 (contd): Variation in Students' Reported Use of Individual Learning Strategies According to English Language Proficiency

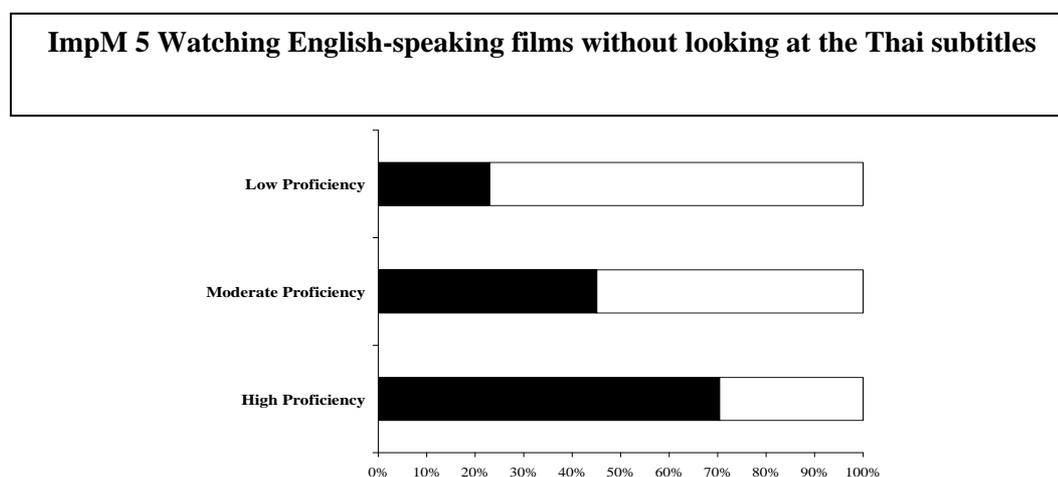
Individual Learning Strategies (used more by high proficiency students – 35 strategies)	% of high use (2 or 3)			Observed χ^2
	High	Moderate	Low	
ExpNM 1 Having extra tutorials	40.7	37.9	24.4	$\chi^2 = 22.5$ p<.001
ExpNM 4 Having own language learning notebooks	40.7	23.8	11.5	$\chi^2 = 33.2$ p<.001
ExpNM 2 Translating English news, song lyrics, poems, etc. into Thai	40.7	26.3	16.6	$\chi^2 = 18.8$ p<.001
PrepB 1 Studying the course details before hand	37.0	11.8	5.9	$\chi^2 = 32.1$ p<.001
PrepB 4 Doing revision of the previous lessons	37.0	22.6	9.8	$\chi^2 = 35.6$ p<.001
ImpNM 3 Talking to oneself in English	37.0	34.2	18.5	$\chi^2 = 32.7$ p<.001
PrepA 4 Personally approaching the teacher by asking the teacher for clarification	33.3	11.1	5.2	$\chi^2 = 29.5$ p<.001
ImpM 8 Listen to radio program in English to improve listening skill	33.3	22.9	11.9	$\chi^2 = 24.2$ p<.001
ExpM 1 Practicing English with a commercially packaged English program	33.3	12.9	7.0	$\chi^2 = 22.8$ p<.001
ExpM 2 Playing games for vocabulary enrichment	33.3	27.7	17.1	$\chi^2 = 17.5$ p<.001
ExpNM 7 Join leisure or social activities to practice and improve English	33.3	13.5	5.4	$\chi^2 = 40.0$ p<.001
PrepA 6 Discussing L2 learning problems with the teacher	25.9	9.6	5.6	$\chi^2 = 16.2$ p<.001
PrepA 2 Attempting to revise today's lessons	25.9	9.0	4.9	$\chi^2 = 18.5$ p<.001
ExpNM 8 Take job to practice English	25.9	9.2	3.5	$\chi^2 = 26.0$ p<.001
PrepA 5 Practicing what is learned in class with the teacher	22.2	14.1	5.6	$\chi^2 = 22.4$ p<.001

Table 6.13: Variation in Students' Reported Use of Individual Learning Strategies According to English Language Proficiency

Individual Learning Strategies (used more by moderate students – 4 strategies)	% of high use (2 or 3)			Observed χ^2
	High	Moderate	Low	
UnderINTER 2 Double checking what is learned with friends/classmates	55.6	67.9	60.7	$\chi^2 = 7.1$ p<.05
PrepA 3 Doing homework or assignments	51.9	61.5	52.2	$\chi^2 = 9.7$ p<.01
UnderINTRA 3 Taking notes while studying	44.4	60.7	48.7	$\chi^2 = 16.6$ p<.001
UnderINTRA 5 Trying to understand English by translating into Thai	44.4	59.8	50.1	$\chi^2 = 11.3$ p<.01

For a closer look at the patterns of variation of individual strategies, the stacked column charts in Figures 6.1 and 6.2 demonstrate examples of a positive pattern of variation, and a mixed one.

Figure 6.1: Example of Variation Pattern Classified as Positive (High>Moderate>Low)



	n	'Often' or 'Always or almost always'		'Never' or 'Sometimes'	
		<u>Response</u>	%	<u>Response</u>	%
High Proficiency	27	19	70.4	8	29.6
Moderate Proficiency	676	305	45.1	371	54.9
Low Proficiency	427	98	23.0	329	77

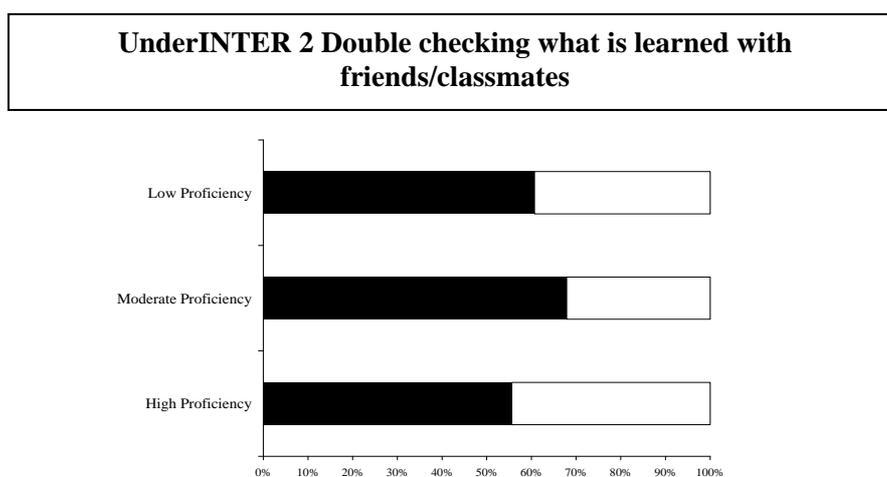
Note: $\chi^2 = 67.9$ ($df = 2$), p<.001

In Figure 6.1 above, 70.4 per cent of high proficiency students reported high frequency of use of ImpM 5; watching English-speaking films without looking at the Thai subtitles; whereas 45.1 and 23.0 per cent of moderate and low proficiency students reported high frequency of use of this learning strategy.

Contrast with Figure 6.2 below, 67.9 per cent of moderate proficiency students reported high frequency of use of UnderINTER 2; double checking what is learned with friends/classmates; whereas 60.7 and 55.6 per cent of low and high proficiency students reported high frequency of use of this learning strategy.

Figure 6.2: Example of Variation Pattern Classified as Mixed

(Moderate>Low>High)



	n	'Often' or 'Always or almost always'		'Never' or 'Sometimes'	
		<u>Response</u>	%	<u>Response</u>	%
High Proficiency	27	15	55.6	12	44.4
Moderate Proficiency	676	459	67.9	217	32.1
Low Proficiency	427	259	60.7	168	39.3

Note: $\chi^2 = 7.1$ ($df = 2$), $p < .05$

As previously discovered in the last sections, the results of ANOVA, The post-hoc Scheffé Test, and chi-square tests provide us with a clear picture of significant

variations in frequency of use of strategies ranging from students' overall strategy use of individual learning strategies in relation to the five variables. What follows are the results of paired samples t-tests and a factor analysis which will give another perspective of the underlying structure of the language learning strategies in the strategy inventory for the present investigation.

6.5 Use of the Strategies by Categories

Paired samples t-tests were also employed in this section to compare two matched samples of subjects tested on the same variable based on the results of two samples that are not independent; the means are related to each other. Table 6.14 below displays mean score of each main category and significance level. The results of paired samples t-tests reveal significant correlation value showing that each pair of main language learning strategies was strongly related.

Table 6.14: Use of the Strategies by Categories

		Mean	n	Significance Level
Pair 1	CATEGORY 1	.79	1134	p<.001
	CATEGORY 2	1.26	1134	
Pair 2	CATEGORY 1	0.79	1134	p<.001
	CATEGORY 3	1.05	1134	
Pair 3	CATEGORY 1	0.79	1134	p<.001
	CATEGORY 4	0.88	1134	
Pair 4	CATEGORY 2	1.26	1134	p<.001
	CATEGORY 3	1.05	1134	
Pair 5	CATEGORY 2	1.26	1134	p<.001
	CATEGORY 4	0.88	1134	
Pair 6	CATEGORY 3	1.05	1134	p<.001
	CATEGORY 4	0.88	1134	

6.6 Factor Analysis Results

Factor analysis is another approach to allow a researcher to understand a large number of correlations between variables, or a complex set of variables, by reducing them to a smaller number of factors which account for many of the original variables (Robson, 2002). It is particularly appropriate in exploratory research where the researcher aims to impose orderly simplification upon a number of interrelated measures (Cohen et al., 2000). Factor analysis is useful here to help the researcher who has no certain prior assumptions about the factor structure seek the underlying structure of the whole set of language learning strategies in the strategy inventory.

In seeking the underlying structure of the language learning strategies across the strategy inventory, a key component factor analysis, and then varimax rotation were carried out on the correlations of 44 language learning strategies, which varied significantly in relation to the five independent variables. Initially, seven factors were extracted with eigenvalues equal to or greater than 1.00. The eigenvalues or the sum of the squared loadings of the extracted seven factors are presented in Table 6.15 below.

Table 6.15: The Sums of the Squared Factor Loadings of the Initial Seven Factors

Component	Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %
1	13.115	31.987	31.987
2	4.208	10.263	42.250
3	3.417	8.335	50.585
4	2.115	5.158	55.743
5	1.931	4.709	60.453
6	1.355	3.305	63.758
7	1.136	2.770	66.528

As illustrated in Table 6.15, the seven factors accounted for 66.53 % of the variability among 44 language learning strategies which were discovered to vary significantly in relation to the five variables as mentioned earlier. To explore further, the researcher reduced the number of factors to three, four, and five. The results of the varimax rotation show obviously different groupings of strategies with the extracted four factors. The percentage of variance in Table 6.15 suggests that more than 50 per cent of the total variation between the frequency of strategy use can be explained by the first four principal components. In other words, the 55.74 per cent figure means that slightly less than half of the variability was unexplained by the four factors. Then the individual language learning strategies were sorted according to their loading on the first factor. The language learning strategies which have the highest loadings with the first factor are used to define the factor; that is, the language learning strategies which are highly loaded are grouped together in order of their loading on the first factor. It should be clarified that the present factor analysis is intended to be exploratory rather than confirmatory. This is because the researcher has no expectation or clear idea about what the factor structure might be.

The four extracted factors, the factor loadings on each strategy item, and the percentage of variance for each factor are displayed in Table 6.16 below.

Table 6.16: List of the Four Extracted Factors

The Four Extracted Factors	Factor Loading	% of Variance
Factor 1: Strategies for Improving One's Language Skills		
ImpM 6 Watching television programs in English to help one familiar with the accents, tone of voice, and intonations	.788	31.99
ImpM 5 Watching English-speaking films to practice listening comprehension without looking at the Thai subtitles	.758	
ImpM 9 Imitating a native speaker from media such as films, songs, cassette tapes, TV shows to practice one's speaking skill	.739	
ImpM 2 Reading printed materials in English to sharpen reading	.734	
ImpM 1 Reading on-line materials to improve one's reading skill	.722	
ImpM 7 Listening to English songs or cassette tapes of English conversations to practice one's listening skill	.709	
ImpM 8 Listening to radio programs in English to improve listening skill	.708	
ImpNM 2 Conversing in English with teachers, peers, siblings, or foreigners	.696	
ImpM 4 Contacting with Thai or foreign friends through emails, instant messages (MSN) or SMS texts with computers or mobile phones to improve one's writing skill	.687	
ImpM 3 Reading any English-printed resources such as labels on drugs or consumer goods, computer instructions/functions in English to enrich the vocabulary and expressions apart from what one has learned in class	.668	
ImpNM 3 Talking to oneself in English	.594	
ImpNM 1 Practicing writing with English texts	.585	
Factor 2: Strategies for Updating One's General Knowledge of English		
ExpM 2 Playing games for vocabulary enrichment	.708	10.26
ExpM 1 Practicing English with a commercially packaged English program	.694	
ExpM 3 Seeking out information in English through surfing the Internet	.689	
ExpNM 8 Taking job to practice English	.678	
ExpNM 4 Having own language learning notebooks	.666	
ExpNM 1 Having extra tutorials	.656	
ExpNM 3 Giving tutorials to others	.601	
ExpNM 6 Practicing general English with family members	.577	
ExpNM 5 Using a dictionary for vocabulary enrichment	.562	
ExpNM 7 Joining leisure or social activities to practice and improve English	.535	
ExpNM 2 Translating English news, song lyrics, poems, etc. into Thai	.460	
UnderINTER 5 Participating in the classroom activities	.424	
UnderINTER 3 Joining a language study group	.386	
UnderINTER 2 Double checking what is learned with friends/classmates	.372	
UnderINTER 4 Choosing to sit near students proficient in L2	.326	

Table 6.16 (contd): List of the Four Extracted Factors

The Four Extracted Factors	Factor Loading	% of Variance
Factor 3: Strategies for Preparing Oneself for Classroom Lessons		
PrepB 4 Doing revision of the previous lessons	.816	8.34
PrepB 3 Attempting to attend the class	.799	
PrepB 1 Studying the course details before hand	.765	
PrepB 2 Attempting to revise today's lessons	.729	
PrepA 1 Reviewing own notes/summary	.725	
PrepB 2 Preparing oneself physically	.703	
PrepA 5 Practicing what is learned in class with the teacher	.648	
PrepA 3 Doing homework or assignments	.639	
PrepA 4 Personally approaching the teacher by asking the teacher for clarification of what is learnt in class	.628	
PrepA 6 Discussing L2 learning problems with the teacher	.605	
Factor 4: Strategies for Helping Oneself Understand What Is Learned in Class		
UnderINTRA 3 Taking notes while studying	.906	5.16
UnderINTRA 4 Thinking to oneself along with the teacher's instruction	.901	
UnderINTRA 5 Trying to understand English by translating into Thai	.886	
UnderINTRA 2 Avoiding talking with other students while studying	.818	
UnderINTRA 6 Consulting a dictionary	.804	
UnderINTRA 1 Trying to get a seat in the front row	.789	

Table 6.16 provides the detail of the four extracted factors as the results of a factor analysis; i.e. varimax rotation. It discovers that:

- Factor 1, 'Strategies for Improving One's Language Skills' accounted for 31.99 per cent of the variance among the language learning strategies in the strategy questionnaire for the present investigation. It comprises 12 strategies which involve practicing English with media and non-media utilization such as television programs, films, songs/cassette tapes, radio programs, printed materials, on-line materials, computer, or mobile phones.
- Factor 2, 'Strategies for Updating One's Knowledge of English' accounted for 10.26 per cent of the whole strategy variance. It includes 15 strategies involving strategies employed to help learners expand their knowledge of English with

media and non-media utilization, as well as with inter- personal interaction strategies they use for social interactions with their teacher and classmates while studying in class.

- Factor 3, 'Strategies for Preparing Oneself for Classroom Lessons' accounted for 5.16 per cent of the variance of the strategy items. This factor contains 10 strategies reported to be used in order to prepare themselves physically and academically before or after class lessons.
- Factor 4, 'Strategies for Helping Oneself Understand What Is Learned in Class' accounted for 8.34 per cent of the variance of the strategy items. This factor consists of 6 intra-personal interaction strategies students employed to help themselves understand classroom lessons. These strategies dealt with the language learning strategies learners use to interact with themselves while studying in class.

The underlying factors of the language learning strategies, the percentage of variance of each factor, and the factor loading for each strategy item have been described above. The following is an examination of the relationship between these factors and each of the five investigated variables: the gender of students; types of academic programs; fields of study; language learning experiences; and language proficiency levels.

In determining such a relationship, factors which are strongly related to a particular variable are pinpointed. For the purpose of the discussions of the factor analysis results in the following section, the criteria for strong relation between the factors and each of the variables suggested by Seliger and Shohamy (1990) are adopted, i.e. a factor is considered to be strongly related to a variable if half or more

of the learning strategies in that particular factor have a loading of .50 or more, showing a significant variation in relation to that variable. In the present investigation, the results of the varimax rotation show that almost all four extracted factors were found to be strongly related to all five investigated variables, particularly Factors 1 and 2.

6.6.1 Factors Strongly Related to the Gender of Students

As reported in the previous sections, the ANOVA results show significant variations in frequency of strategy use according to this variable. The results of the factor analysis reveal that only one extracted factor (Factor 4) which was found to be strongly related to the gender of students are dealing with strategies used for helping understand while studying in class, see more in Table 6.17 below.

Table 6.17: Factor Strongly Related to the Gender of Students

The Extracted Factors	Factor Loading	Comment
Factor 4: Strategies for Helping Oneself Understand What Is Learned in Class		
UnderINTRA 3 Taking notes while studying	.906	Every strategy was used significantly more frequently by the female students than the male counterparts.
UnderINTRA 4 Thinking to oneself along with the teacher's instruction	.901	
UnderINTRA 5 Trying to understand English by translating into Thai	.886	
UnderINTRA 2 Avoiding talking with other students while studying	.818	
UnderINTRA 6 Consulting a dictionary	.804	
UnderINTRA 1 Trying to get a seat in the front row	.789	

6.6.2 Factors Strongly Related to Types of Academic Programs

As reported in the previous sections, the ANOVA results show significant variations in frequency of strategy use according to this variable. Similarly, the results of the factor analysis reveal that three extracted factors (Factors 1, 2, and 3)

which were found to be strongly related to students' types of academic programs are dealing with strategies used for improving language skills, updating general knowledge of English, and preparing for classroom lessons respectively. The three factors found to be strongly related to types of academic programs are presented in Table 6.18 below.

Table 6.18: Factors Strongly Related to Types of Academic Programs

The Extracted Factors	Factor Loading	Comment
Factor 1: Strategies for Improving One's Language Skills		
ImpM 6 Watching television programs in English to help one familiar with the accents, tone of voice, and intonations	.788	Every strategy was used significantly more frequently by the students studying in the international program than those studying in the regular program.
ImpM 5 Watching English-speaking films to practice listening comprehension without looking at the Thai subtitles	.758	
ImpM 9 Imitating a native speaker from media to practice one's speaking skill	.739	
ImpM 2 Reading printed materials in English to sharpen reading	.734	
ImpM 1 Reading on-line materials to improve one's reading skill	.722	
ImpM 7 Listening to English songs or cassette tapes of English conversations to practice one's listening skill	.709	
ImpM 8 Listening to radio programs in English to improve listening skill	.708	
ImpNM 2 Conversing in English with teachers, peers, siblings, or foreigners	.696	
ImpM 4 Contacting with Thai or foreign friends through emails, instant messages (MSN) or SMS texts with computers or mobile phones to improve one's writing skill	.687	
ImpM 3 Reading any English-printed resources such as labels on drugs or consumer goods, computer instructions/functions in English to enrich the vocabulary and expressions apart from what one learned in class	.668	

Table 6.18 (contd): Factors Strongly Related to Types of Academic Programs

The Extracted Factors	Factor Loading	Comment
Factor 2: Strategies for Updating One's General Knowledge of English		
ImpNM 3 Talking to oneself in English	.594	Every strategy was used significantly more frequently by the students studying in the international program than those studying in the regular program.
ImpNM 1 Practicing writing with English texts	.585	
ExpM 2 Playing games for vocabulary enrichment	.708	
ExpM 1 Practicing English with a commercially packaged English program	.694	
ExpM 3 Seeking out information in English through surfing the Internet	.689	
ExpNM 8 Taking job to practice English	.678	
ExpNM 4 Having own language learning notebooks	.666	
ExpNM 3 Giving tutorials to others	.601	
ExpNM 6 Practicing general English with family members	.577	
ExpNM 5 Using a dictionary for vocabulary enrichment	.562	
ExpNM 7 Joining leisure or social activities to practice and improve English	.535	
ExpNM 2 Translating English news, song lyrics, poems, etc. into Thai	.460	
UnderINTER 5 Participating in the classroom activities	.424	
UnderINTER 3 Joining a language study group	.386	
UnderINTER 2 Double checking what is learned with friends/classmates	.372	
Factor 3: Strategies for Preparing Oneself for Classroom Lessons		
PrepB 4 Doing revision of the previous lessons	.816	Every strategy was used significantly more frequently by the students studying in the international program than those studying in the regular program.
PrepB 3 Attempting to attend the class	.799	
PrepA 2 Attempting to revise today's lessons	.729	
PrepA 1 Reviewing own notes/summary	.725	
PrepB 2 Preparing oneself physically	.703	
PrepA 5 Practicing what is learned in class with the teacher	.648	
PrepA 3 Doing homework or assignments	.639	
PrepA 4 Personally approaching the teacher by asking the teacher for clarification of what is learnt in class	.628	
PrepA 6 Discussing L2 learning problems with the teacher	.605	

6.6.3 Factors Strongly Related to Fields of Study

Table 6.19 below confirms the ANOVA results by showing significant variations in frequency of strategy use in association with this variable. The three extracted factors (Factors 1, 2, and 3), involving strategies used for improving language skills, updating general knowledge of English, and preparing for classroom lessons respectively, are presented in Table 6.19 below.

Table 6.19: Factors Strongly Related to Fields of Study

The Extracted Factors	Factor Loading	Comment
Factor 1: Strategies for Improving One's Language Skills		
ImpM 6 Watching television programs in English to help one familiar with the accents, tone of voice, and intonations	.788	Every strategy was used significantly more frequently by the students studying in the non-science-oriented field than those studying in the science-oriented one.
ImpM 5 Watching English-speaking films to practice listening comprehension without looking at the Thai subtitles	.758	
ImpM 9 Imitating a native speaker from media such as films, songs, cassette tapes, TV shows to practice speaking skill	.739	
ImpM 2 Reading printed materials such as books, magazines, newspapers in English to sharpen reading	.734	
ImpM 1 Reading on-line materials (e.g. news, articles, tale stories, film scripts in English) to improve one's reading skill	.722	
ImpM 7 Listening to English songs or cassette tapes of English conversations to practice one's listening skill	.709	
ImpM 8 Listening to radio programs in English to improve one's listening skill	.708	
ImpNM 2 Conversing in English with teachers, peers, siblings, or foreigners	.696	
ImpM 4 Contacting with Thai or foreign friends through emails, instant messages (MSN) or SMS texts with computers or mobile phones to improve one's writing skill	.687	
ImpM 3 Reading any English-printed resources in English to enrich the vocabulary and expressions apart from what one learned in class	.668	
ImpNM 3 Talking to oneself in English	.594	
ImpNM 1 Practicing writing with English texts	.585	

Table 6.19 (contd): Factors Strongly Related to Fields of Study

The Extracted Factors	Factor Loading	Comment
Factor 2: Strategies for Updating One's General Knowledge of English		
ExpM 1 Practicing English with a commercially packaged English program	.694	Every strategy was used significantly more frequently by the students studying in the non-science-oriented field than those studying in the science-oriented one.
ExpM 3 Seeking out information in English through surfing the Internet	.689	
ExpNM 8 Taking job to practice English	.678	
ExpNM 4 Having own language learning notebooks	.666	
ExpNM 1 Having extra tutorials	.656	
ExpNM 3 Giving tutorials to others	.601	
ExpNM 6 Practicing general English with family members	.577	
ExpM 5 Using a dictionary for vocabulary enrichment	.562	
ExpNM 7 Joining leisure or social activities to practice and improve English	.535	
ExpNM 2 Translating English news, song lyrics, poems, etc. into Thai	.460	
UnderINTER 5 Participating in the classroom activities	.424	
UnderINTER 3 Joining a language study group	.386	
UnderINTER 2 Double checking what is learned with friends/classmates	.372	
Factor 3: Strategies for Preparing Oneself for Classroom Lessons		
PrepB 4 Doing revision of the previous lessons	.816	Every strategy was used significantly more frequently by the students studying in the non-science-oriented field than those studying in the science-oriented one.
PrepB 3 Attempting to attend the class	.799	
PrepA 1 Reviewing own notes/summary	.725	
PrepA 5 Practicing what is learned in class with the teacher	.648	
PrepA 3 Doing homework or assignments	.639	
PrepA 4 Personally approaching the teacher by asking the teacher for clarification of what is learnt in class	.628	
PrepA 6 Discussing L2 learning problems with the teacher	.605	

6.6.4 Factors Strongly Related to English Learning Experiences

In the previous sections, the ANOVA results show significant variations in frequency of strategy use according to this variable. Similarly, the results of the factor analysis reveal that three extracted factors (Factors 1, 2, and 4) which were

found to be strongly related to English learning experiences are dealing with strategies used for improving language skills, updating general knowledge of English, and helping understand what is learned in class respectively. The three factors found to be strongly related to English learning experiences are presented in Table 6.20 below.

Table 6.20: Factors Strongly Related to English Learning Experiences

The Extracted Factors	Factor Loading	Comment
Factor 1: Strategies for Improving One's Language Skills		
ImpM 6 Watching television programs in English to help one familiar with the accents, tone of voice, and intonations	.788	Every strategy was used significantly more frequently by the students who have more language learning experiences than those who have less.
ImpM 5 Watching English-speaking films to practice listening comprehension without looking at the Thai subtitles	.758	
ImpM 9 Imitating a native speaker from media such as films, songs, cassette tapes, TV shows to practice one's speaking skill	.739	
ImpM 2 Reading printed materials such as books, magazines, newspapers in English to sharpen reading	.734	
ImpM 1 Reading on-line materials (e.g. news, articles, tale stories, film scripts in English) to improve one's reading skill	.722	
ImpM 7 Listening to English songs or cassette tapes of English conversations to practice one's listening skill	.709	
ImpNM 2 Conversing in English with teachers, peers, siblings, or foreigners	.696	

Table 6.20 (contd): Factors Strongly Related to English Learning Experiences

The Extracted Factors	Factor Loading	Comment
Factor 1: Strategies for Improving One's Language Skills		
ImpM 4 Contacting with Thai or foreign friends through emails, instant messages (MSN) or SMS texts with computers or mobile phones to improve one's writing skill	.687	Every strategy was used significantly more frequently by the students who have more language learning experiences than those who have less.
ImpM 3 Reading any English-printed resources in English to enrich the vocabulary and expressions apart from what one learned in class	.668	
ImpNM 3 Talking to oneself in English	.594	
ImpNM 1 Practicing writing with English texts	.585	
Factor 2: Strategies for Updating One's General Knowledge of English		
ExpM 2 Playing games for vocabulary enrichment	.708	Every strategy was used significantly more frequently by the students who have more language learning experiences than those who have less.
ExpM 1 Practicing English with a commercially packaged English program	.694	
ExpM 3 Seeking out information in English through surfing the Internet	.689	
ExpNM 4 Having own language learning notebooks	.666	
ExpNM 1 Having extra tutorials	.656	
ExpM 5 Using a dictionary for vocabulary enrichment	.562	
ExpNM 2 Translating English news, song lyrics, poems, etc. into Thai	.460	
UnderINTER 5 Participating in the classroom activities	.424	
UnderINTER 2 Double checking what is learned with friends/classmates	.372	
Factor 4: Strategies for Helping Oneself Understand What Is Learned in Class		
UnderINTRA 3 Taking notes while studying	.906	Every strategy was used significantly more frequently by the students who have more language learning experiences than those who have less.
UnderINTRA 4 Thinking to oneself along with the teacher's instruction	.901	
UnderINTRA 6 Consulting a dictionary	.804	

6.6.5 Factors Strongly Related to English Proficiency

As indicated in the previous sections, the ANOVA results show significant variations in frequency of strategy use according to this variable. The results of the factor analysis have confirmed the ANOVA results, revealing that all four extracted factors which were found to be strongly related to English proficiency. The four extracted factors deal with strategies used for improving language skills, updating general knowledge of English, preparing for classroom lessons, and helping understand while studying in class respectively. The relationship of the four factors and English proficiency is presented in Table 6.21.

If we take a closer look at the employment of learning strategy use, we can see that the patterns of relationship between each strategy use of the four extracted factors and language proficiency levels are obviously varied. The patterns can be classified as positive (High>Moderate>Low), negative (Low>Moderate>High), or mixed. As reported in Table 6.21, we can see that most of the patterns of relationship are positive, and no negative patterns were found here.

Table 6.21: Factors Strongly Related to English Proficiency

The Extracted Factors	Factor Loading	Comment
Factor 1: Strategies for Improving One's Language Skills		
ImpM 6 Watching television programs in English to help one familiar with the accents, tone of voice, and intonations	.788	Positive
ImpM 5 Watching English-speaking films to practice listening comprehension without looking at the Thai subtitles	.758	Positive
ImpM 9 Imitating a native speaker from media such as films, songs, cassette tapes, TV shows to practice one's speaking skill	.739	Positive
ImpM 2 Reading printed materials such as books, magazines, newspapers in English to sharpen reading	.734	Positive

Table 6.21 (contd): Factors Strongly Related to English Proficiency

The Extracted Factors	Factor Loading	Comment
Factor 1: Strategies for Improving One's Language Skills		
ImpM 1 Reading on-line materials (e.g. news, articles, tale stories, film scripts in English) to improve one's reading skill	.722	Positive
ImpM 7 Listening to English songs or cassette tapes of English conversations to practice one's listening skill	.709	Positive
ImpM 8 Listening to radio programs in English to improve listening skill	.708	Positive
ImpNM 2 Conversing in English with teachers, peers, siblings, or foreigners	.696	Positive
ImpM 4 Contacting with Thai or foreign friends through emails, instant messages (MSN) or SMS texts with computers or mobile phones to improve one's writing skill	.687	Positive
ImpM 3 Reading any English-printed resources in English to enrich the vocabulary and expressions apart from what one learned in class	.668	Positive
ImpNM 3 Talking to oneself in English	.594	Positive
ImpNM 1 Practicing writing with English texts	.585	Positive
Factor 2: Strategies for Updating One's General Knowledge of English		
ExpM 2 Playing games for vocabulary enrichment	.708	Positive
ExpM 1 Practicing English with a commercially packaged English program	.694	Positive
ExpM 3 Seeking out information in English through surfing the Internet	.689	Positive
ExpNM 8 Taking job to practice English	.678	Positive
ExpNM 4 Having own language learning notebooks	.666	Positive
ExpNM 1 Having extra tutorials	.656	Positive
ExpNM 3 Giving tutorials to others	.601	Positive
ExpNM 6 Practicing general English with family members	.577	Positive
ExpM 5 Using a dictionary for vocabulary enrichment	.562	Positive
ExpNM 7 Joining leisure or social activities to practice English	.535	Positive
Factor 2: Strategies for Updating One's General Knowledge of English		
ExpNM 2 Translating English news, song lyrics, poems, etc. into Thai	.460	Positive
UnderINTER 5 Participating in the classroom activities	.424	Positive
UnderINTER 3 Joining a language study group	.386	Positive
UnderINTER 2 Double checking what is learned with friends/classmates	.372	Mixed
UnderINTER 4 Choosing to sit near students proficient in L2	.326	N.S.

Table 6.21 (contd): Factors Strongly Related to English Proficiency

The Extracted Factors	Factor Loading	Comment
Factor 3: Strategies for Preparing Oneself for Classroom Lessons		
PrepB 4 Doing revision of the previous lessons	.816	Positive
PrepB 3 Attempting to attend the class	.799	Positive
PrepB 1 Studying the course details before hand	.765	Positive
PrepA 2 Attempting to revise today's lessons	.729	Positive
PrepA 1 Reviewing own notes/summary	.725	Positive
PrepB 2 Preparing oneself physically	.703	N.S.
PrepA 5 Practicing what is learned in class with the teacher	.648	Positive
PrepA 3 Doing homework or assignments	.639	Positive
PrepA 4 Personally approaching the teacher by asking the teacher for clarification of what is learnt in class	.628	Positive
PrepA 6 Discussing L2 learning problems with the teacher	.605	Positive
Factor 4: Strategies for Helping Oneself Understand What Is Learned in Class		
UnderINTRA 3 Taking notes while studying	.906	Mixed
UnderINTRA 4 Thinking to oneself along with the teacher's instruction	.901	Positive
UnderINTRA 5 Trying to understand English by translating into Thai	.886	Mixed
UnderINTRA 2 Avoiding talking with other students while studying	.818	N.S.
UnderINTRA 6 Consulting a dictionary	.804	N.S.
UnderINTRA 1 Trying to get a seat in the front row	.789	Positive

In conclusion, four factors were extracted as the results of a factor analysis. All four extracted factors were found to be strongly related to all five investigated variables. In addition, language proficiency level was the only one variable that showed the strongest relationship with all four extracted factors. Table 6.22 below summarises the strong relationship between the factors and the variables of the present investigation.

Table 6.22: Summary of Factors Strongly Related to Different Variables

Extracted Factor	Gender	Types of Program	Fields of Study	Learning Experiences	Proficiency Level
1. Strategies for Improving One's Language Skills	NO	YES	YES	YES	YES
2. Strategies for Updating One's General Knowledge of English	NO	YES	YES	YES	YES
3. Strategies for Preparing Oneself for Classroom Lessons	NO	YES	YES	NO	YES
4. Strategies for Helping Oneself Understand What Is Learned in Class	YES	NO	NO	YES	YES

6.7 Summary

In this chapter, the process of data analysis is presented with a systematic examination of variations in frequency of students' overall use, use of strategies in the four main categories, and use of individual learning strategies by five independent variables: gender, types of academic programs, fields of study, English learning experiences, and English proficiency level. Data were collected through the use of the language learning strategy questionnaire with a total of 44 individual language learning strategies. Analysis of variance, chi-square tests and a factor analysis were the three main data analysis methods.

The research findings and discussions have demonstrated through a summary below. It is believed that each focal point of discussion will contribute to the understanding about learning strategy study, as well as the relationships between the use of language learning strategies at different levels and the factors which are the

main focus of the present investigation. The main points of research findings can be summarized as follows:

- Significant variations in frequency of students' overall strategy use were found in relation to all five investigated variables. In terms of gender of students, female students reported employing overall language learning strategies significantly more frequently than males. In terms of types of academic programs, students in international programs reported greater overall strategy use than those in regular programs. Significant variations were also found in the frequency of students' overall strategy use with regard to their fields of study; that is, students in the field of non-science oriented reported employing overall language learning strategies significantly more frequently than those in the field of science oriented. In terms of English language learning experiences, students with more English learning experiences (more than 8 years) reported employing overall language learning strategies significantly more frequently than those with less English learning experiences (8 years or less). The last significant variations were found in relation to the last variable, English proficiency levels, students with high proficiency level reported employing overall strategy use significantly more frequently than moderate and low proficiency level students, while moderate proficiency level students employed language learning strategies significantly more frequently than low proficiency level students.
- Major significant variations in frequency of use in the four main categories were found with relation to all five investigated variables. That is, female, international program, non-science, more language learning experienced, and

high English proficiency level students reported more frequent strategy use of these strategies than male, regular program, science, less learning experienced, and lower English proficiency students.

- In more detailed, there was some of no statistical significance found in overall use of learning strategies. In the first main category concerning self-preparation for classroom lessons, female students reported more frequent use of strategies that use to prepare themselves after class for classroom lessons than males, but they did not differ in terms of before class preparation. Another no statistical significance was found in the second main category which deals with strategies used for understanding while studying in class. With relation to English learning experiences, students with different learning experiences did not differ in terms of intra-personal interaction; i.e. strategies students use to interact with themselves e.g. trying to get a seat in the front row, avoiding talking with other students while studying, thinking to themselves along with the teacher's instruction.
- The patterns of overall strategy use among the four main categories with relation to the five variables was obviously discovered that females, international, non-science fields, more learning experiences, and higher language proficiency levels reported employing strategies in the second main category, strategies employed to understand while studying in class, were the most popular and highest used among the other main categories, followed by the strategies employed to improve language skills, expand general knowledge of English, and prepare for classroom lessons respectively.

- Based on the results of chi-square tests, the individual learning strategies in terms of variation in frequency of use, and pattern of variation of use were significantly found to all five investigated variables. That is, in use of individual learning strategies, female, international program, non-science, more learning experienced, and high language proficiency students reporting more frequent use of individual learning strategies. These findings show parallel evidence to the findings obtained through the different levels of analysis of variance.
- Four factors (Factor 1 – Factor 4) were extracted as the result of factor analysis. The results of the factor analysis provide supporting evidence to the findings obtained through the different levels of an analysis of variance. Generally, the results of the factor analysis demonstrate that language proficiency levels show the strongest relationship to students' use of learning strategies. While, the gender of students shows the least strong relationship to students' use of learning strategies.
- Factor 1 'Strategies for Improving One's Language Skills' and Factor 2 'Strategies for Updating One's General Knowledge of English' were found to be strongly related to every variable except gender of students.
- Factor 3 'Strategies for Preparing Oneself for Classroom Lessons' was found strongly related to types of academic programs, fields of study, and language proficiency.
- Factor 4 'Strategies for Helping Oneself Understand What Is Learned in Class' was found strongly related to gender of students, fields of study, language learning experiences, and language proficiency.

The research findings for the present investigation have provided the researcher with useful information for clearer understanding research in the field of language learning strategies. In the last chapter of the dissertation, Chapter 7, a summary of the research findings in response to the research questions will be expressed together with the implications, limitations of the present investigation, as well as discussion for the further research.

CHAPTER 7

RESULTS AND DISCUSSION

7.1 Introduction and Purpose of the Chapter

The main purpose of the last chapter is to present the main findings of the investigation in response to 7 research questions mentioned earlier in Chapter 3. This is followed by a discussion of the implications emerged from the research for the English teaching and learning for public university freshmen in Thailand. Finally, the limitations of the present investigation and proposals for the further research are also provided.

In Chapters 5 and 6, through an implication of the strategy questionnaire, the researcher has systematically identified types of language learning strategies and the reported frequency of such strategies used by 1,134 public university freshmen in Thailand. Chapter 6 displays significant variations in strategy use, specially the relationships between students' reported frequency of use of language learning strategies and different independent variables including gender of students, types of academic programs, fields of study, language learning experience, and language proficiency. In this chapter, the following discussion will help readers understand more about certain patterns of significant variations in strategy use, as well as other apparently significant differences in association with each variable.

7.2 Findings and Discussion

The present investigation has reported the research findings of students' reported language learning strategy use. These findings also form responses to the research questions; afterwards, they are discussed further below.

7.2.1 Research Questions

7.2.1.1 Research Question 1: What are the types of language learning strategies reported to be employed by public university students learning English as a foreign language in Thailand?

- Findings

In response to the first research question, the research findings demonstrate that a total of 44 individual language learning strategies were reported by Thai public university freshmen. These 44 language learning strategies were classified according to the learners' reported performances and perceptions of acquiring L2 learning in the classroom context and in a free situation. The four main language learning strategy categories include 1) Preparing Oneself for Classroom Lessons (Prep), 2) Understanding while Studying in Class (Under), 3) Improving One's Language Skills (Imp), and 4) Expanding One's General Knowledge of English (Exp). What follows is the emergent strategy inventory of the present investigation:

I. Preparing Oneself for Classroom Lessons (Prep)

1. Before Class (PrepB)

PrepB 1 Studying the course details before hand

PrepB 2 Preparing oneself physically

PrepB 3 Attempting to attend the class

PrepB 4 Doing revision of the previous lessons

2 After Class (PrepA)

PrepA 1 Reviewing own notes/summary

PrepA 2 Attempting to revise today's lessons

PrepA 3 Doing homework or assignments

PrepA 4 Personally approaching the teacher by asking the teacher for clarification of what is learnt in class

PrepA 5 Practicing what is learned in class with the teacher

PrepA 6 Discussing L2 learning problems with the teacher

II. Understanding while Studying in Class (Under)

1. Intra-Personal Interaction (UnderINTRA)

UnderINTRA 1 Trying to get a seat in the front row

UnderINTRA 2 Avoiding talking with other students while studying

UnderINTRA 3 Taking notes while studying

UnderINTRA 4 Thinking to oneself along with the teacher's instruction

UnderINTRA 5 Trying to understand English by translating into Thai

UnderINTRA 6 Consulting a dictionary

2. Inter-Personal Interaction (UnderINTER)

UnderINTER 1 Asking the teacher for clarification

UnderINTER 2 Double checking what is learned with friends/classmates

UnderINTER 3 Joining a language study group

UnderINTER 4 Choosing to sit near students proficient in L2

UnderINTER 5 Participating in the classroom activities

III. Improving One's Language Skills (Imp)

1 Media Utilization (ImpM)

ImpM 1 Reading on-line materials (e.g. news, articles, tale stories, film scripts in English) to improve one's reading skill

ImpM 2 Reading printed materials such as books, magazines, newspapers in English to sharpen reading

ImpM 3 Reading any English-printed resources such as labels on drugs or consumer goods, computer instructions/functions in English to enrich the vocabulary and expressions apart from what one has learned in class

1 Media Utilization (ImpM) (contd.)

ImpM 4 Contacting with Thai or foreign friends through emails, instant messages (MSN) or SMS texts with computers or mobile phones to improve one's writing skill

ImpM 5 Watching English-speaking films to practice one's listening comprehension without looking at the Thai subtitles

ImpM 6 Watching television programs in English to help one familiar with the accents, tone of voice, and intonations

ImpM 7 Listening to English songs or cassette tapes of English conversations to practice one's listening skill

ImpM 8 Listening to radio programs in English to improve one's listening skill

ImpM 9 Imitating a native speaker from media such as films, songs, cassette tapes, TV shows to practice one's speaking skill

2. Non-Media Utilization (ImpNM)

ImpNM 1 Practicing writing with English texts such as poems, greeting cards, or diaries etc.

ImpNM 2 Conversing in English with teachers, peers, siblings, or foreigners

ImpNM 3 Talking to oneself in English

IV. Expanding One's General Knowledge of English (Exp)

1. Media Utilization (ExpM)

ExpM 1 Practicing English with a commercially packaged English program (e.g. TOEFL, IELTS, Follow Me)

ExpM 2 Playing games for vocabulary enrichment such as English crossword puzzles

ExpM 3 Seeking out information in English through surfing the Internet

2. Non-Media Utilization (ExpNM)

ExpNM 1 Having extra tutorials

(e.g. attending extra classes at a private language school, having a personal tutor teaching English at home, taking short English courses abroad)

2. Non-Media Utilization (ExpNM) (contd.)

ExpNM 2 Translating English news, song lyrics, poems, etc. into Thai

ExpNM 3 Giving tutorials to others like junior students, peers, or siblings

ExpNM 4 Having own language learning notebooks

ExpNM 5 Using a dictionary for vocabulary enrichment

ExpNM 6 Practicing general English with family members

ExpNM 7 Joining leisure or social activities to practice and improve

English (e.g. joining English Camps, entering singing contests, going to a church on Sunday, etc.)

ExpNM 8 Taking job to practice English

(e.g. being a local/young guide in the hometowns, working part-time at a restaurant, where there are many foreign customers)

- Discussion

Based on the research findings, the reported language learning strategies reported by Thai public university freshmen were classified into four broad groups according to their language purposes; i.e. classroom preparation, lesson comprehension, skill improvement, and general knowledge expansion. It could be that the importance of language learning strategy use in the Thai context is not only for language learners themselves, but also for pedagogical process as the whole.

If paying closely attention to each proposed language learning strategy category, we will see that preparing for the classroom lessons and understanding what is learned in class are truly necessary for Thai public university freshmen in order to pass the examinations. Noticeably, almost all of the reported language learning strategies (21 out of 44) deal with classroom-related language learning strategies used for learners' self-preparation to achieve the exam-based purposes and the lesson-based success. Furthermore, the importance of using and practicing English outside the classroom are also taken into consideration as Thai public university freshmen reported these types of language learning strategies in order to improve their language skills and expand their language knowledge through both media and non-media utilization.

7.2.1.2 Research Question 2: What is the frequency with which these language learning strategies are reported to be used by these students?

- Findings

In response to the second research question, the research findings reveal that the students' reported overall use of these language learning strategies based on the holistic mean score is of medium frequency according to the measure described in Chapter 5 (Section 5.2). The mean frequency score was 1.00. There is a different frequency of use of the strategies in the four main categories; that is, the mean frequency score of Category 1 was .79 (low frequency); Category 2 1.26 (medium frequency); Category 3 1.05 (medium frequency); and Category 4 .88 (low frequency) respectively. When the reported frequencies of use of strategies in the four main categories were determined, no high frequency of strategy use in any of the main categories was found.

At the individual strategy level, it was found that students reported various levels of frequency use. In Category 1, most of learning strategies used to prepare for classroom lessons (7 out of 10 strategies) were reportedly employed at the low frequency level, but three learning strategies were found to be used at the medium frequency level: doing homework or assignments (PrepA 3); attempting to attend the class (PrepB 3), and reviewing own notes/summary (PrepA 1). The mean scores were 1.55, 1.04, and 1.00 respectively. Opposite to Category 2, almost all of learning strategies used to understand while studying in class (10 out of 11 strategies) were reportedly used at the medium frequency level, and the only one strategy in this category used at the low frequency level was that for avoiding talking with other students while studying in class (UnderINTRA 2) and its mean score was .97.

More or less the same to Category 3, most of strategies (9 out of 12 strategies) used to improve language skills were reportedly used at the medium frequency level, while three strategies used at the low frequency level were those for conversing in English with teachers, peers, siblings, or foreigners (ImpNM 2), listening to radio programs in English (ImpM 8), and practicing writing with English texts (ImpNM 1). Their mean scores were .96, .87, and .79 respectively. In Category 4, most strategies for expanding general knowledge of English (8 out of 11 strategies) were reportedly employed at the low frequency level, while small number of learning strategies (3 out of 11 strategies) were reported at medium frequency level; that is, using a dictionary for vocabulary enrichment (ExpNM 5), seeking out information in English through surfing the Internet (ExpM 3), and playing games for vocabulary enrichment (ExpM 2). The mean scores of these three medium-use strategies of this category were 1.51, 1.15, and 1.04 respectively.

- Discussion

Based on the research findings, it seems that for Thai public university freshmen, striving for the long-term achievement is not their ultimate goals of English learning, but only for the short-term one for the sake of exam-based achievement. They, therefore, reported the use of the related language learning strategies at the medium frequency level to achieve that language purposes such as do homework or assignments in order to get the high scores in their class, attempt to attend the class regularly due to the class attendance considered as one of the requirements for the examination eligibility, and review their notes/summary to prepare themselves for the examination.

Additionally, the issues regarding the utilisations of supplementary resources and mass media would be considerably involved to explain how often Thai public university freshmen use their language learning strategies to help improve their language skills and expand their general knowledge of English. To do so, a lot of Thai public university freshmen reported the frequent use of supplementary resources and media; i.e. a dictionary, the Internet, and games. However, some kinds of mass media are lack of availability; for example, radio programs in English. This might be because such radio programs have been insufficiently provided throughout the country, particularly in the remote areas. Another cause of infrequent using radio programs for English practice might be that nowadays there are more various kinds of technology-aided English practice such as computer, Ipod (the portable digital audio player), and MP3/4 (audio-specific formats). Thus the use of radio programs tends to be less popular among Thai public university freshmen.

One more interesting issue to be discussed is concerned with the limited opportunities to practice English in the authentic atmospheres. In the EFL contexts like Thailand, the learners have not only rare opportunities to use and practice English in the classroom where teaching and learning English have been managed with the use of Thai as the main medium of instruction, but also outside the classroom where they use Thai for life and social activities. Therefore, English classroom is likely the only chance for them to use and practice English. This would be the reasons why they reported the low use of language learning strategies to improve their English skills with conversing English with teachers, peers, siblings, or foreigners, or practicing by writing with English texts outside the classroom.

7.2.1.3 Research Question 3: Do students' choices of language learning strategies vary significantly with their gender? If they do, what are the main patterns of variation?

In response to the third research question, an aim to examine variation in use of language learning strategies as well as patterns of variation was operated and then reported in Chapter 6. As discovered in the strategy questionnaire responded by 1,134 public university freshmen in Thailand, the findings at four different levels of data analysis and the results of a factor analysis in relation to gender of students can be summarized as follows:

- Overall Strategy Use

The results of ANOVA show that there was significant variation in students' reported overall strategy use in relation to gender of students. It can be interpreted that female students reported more frequent overall strategy use than male ones to prepare themselves for classroom lessons (Prep), understand while studying in class (Under), improve their language skills (Imp), and expand their general knowledge of English (Exp).

- Use of Individual Language Learning Strategies

The chi-square tests show that use of 21 out of 44 individual language learning strategies (47.73%) varied significantly according to gender of students. From all four main categories, none of individual learning strategies was used more with a higher reported frequency by male students. Almost half of them, 10 out of 21, are strategies employed by female students to understand while studying in class through inter-personal and intra-personal interactive ways e.g. double checking what is learned with friends/classmates 70.5 per cent (UnderINTER 2), taking notes while

studying 60.3 per cent (UnderINTRA 3), trying to understand English by translating into Thai 57.8 per cent (UnderINTRA 5).

- Factor Analysis Results

The results of a factor analysis show that one factor was found to be strongly related to gender of students, that is, Factor 4 'Strategies for Helping Oneself Understand What Is Learned in Class'. The main underlying relationship between students' reported strategy use and gender of the study is in the use of intra-personal interaction strategies for helping them understand what is learned in class in the 'Under' category: UnderINTRA 3: Taking notes while studying; UnderINTRA 4: Thinking to oneself along with the teacher's instruction; UnderINTRA 5: Trying to understand English by translating into Thai; UnderINTRA 2: Avoiding talking with other students while studying; UnderINTRA 6: Consulting a dictionary; and UnderINTRA 1: Trying to get a seat in the front row.

- Discussion

The results of most previous studies in which the gender of students was taken into account have concluded that females employ certain strategies significantly more frequently than their male counterparts (e.g. Ehrman and Oxford, 1989; Oxford and Nyikos, 1989; Nyikos, 1990; Tercanlioglu, 2004; Ok, 2005). These results are consistent to the major findings of the present investigation demonstrating that gender had a profound influence on students' choices of strategy use. The findings in this respect suggest that Thai public university freshmen's reportedly used learning strategies in all four main categories, significantly related to their gender, especially those for understanding what is learned in class. In addition, male students did not

report using any strategies significantly more frequently than their female counterparts.

This factor might be a basic distinction relating to the choice of students' language learning strategy use. The outstanding findings which are worth discussing are significant differences of strategy use between female and male students. As found in the findings of the study, female students not only score higher than male ones in terms of strategy choice, but also frequency of use, especially strategy use for understanding while studying in class in light of self-assisted learning management and self-problem solving e.g. trying to get a seat in the front row, avoiding talking with other students while studying, taking notes while studying, thinking along with the teacher's instruction, trying to understand English by translating into Thai, and consulting a dictionary.

With a support of previous empirical research, a few factors which could possibly be explained for such significant differences hypothesized by the researcher are learners' different characteristics; i.e. dependent versus independent characteristics. As Schunk and Zimmerman (1994: 284) point out, learners' dependent and independent characteristics could be explained under the dimension of students' academic help seeking, which varies according to the degree of their maturity and autonomy in L2 learning. Typically, help seekers are characterized as students who are immature or dependent on others, whereas those who can work on their own without needing help are characterized as mature and autonomous. From this study, female students are likely more mature and independent than male students, who can work on their own with well organizational skills, even when stuck, they rely on themselves rather than teachers or classmates.

7.2.1.4 Research Question 4: Do students' choices of language learning strategies vary significantly according to fields of the study they are studying? If they do, what are the main patterns of variation?

In response to the fourth research question, an aim to examine variation in use of language learning strategies as well as patterns of variation was operated and then reported in Chapter 6. As found in the strategy questionnaire responded to by 1,134 public university freshmen in Thailand, the findings at four different levels of data analysis and the results of a factor analysis in relation to fields of the study can be summarized as follows:

- Overall Strategy Use

In response to the fourth research question, the results of the ANOVA show significant variations of students' reported overall language learning strategy use in relation to fields of the study; i.e. non-science students reported employing language learning strategies more frequently than science students in order to prepare themselves for classroom lessons (Prep), understand while studying in class (Under), improve their language skills (Imp), and expand their general knowledge of English (Exp).

- Use of Individual Language Learning Strategies

The chi-square tests show that use of 35 out of 44 individual language learning strategies (79.55%) varied significantly according to fields of the study, with a greater percentage of students studying in the non-science field reporting high frequency of use of all mentioned 35 strategies than those studying science, and none of individual learning strategies was used more with a higher reported frequency by science students. The results also show that the strategies which most non-science students

reported employing at a high use level were those for preparing oneself after class by doing homework or assignments, and understanding while studying in class with and without personal interaction; i.e. 62.1 per cent reported to do homework or assignments (PrepA 3), 70 per cent employed double checking what is learned with friends in class (UnderINTER 2), 57.4 per cent thinking to oneself along with the teacher's instruction (UnderINTRA 4), and 55.3 per cent participating in the classroom activities (UnderINTER 6). More or less the same way of using individual strategies among science students, more than half of them reported employing strategy to double check what is learned with friends in class (UnderINTER 2) 58.2 per cent, and reporting using strategy to do homework or assignments (PrepA 3) 52.5 per cent.

- Factor Analysis Results

The results of a factor analysis show that three factors were found to be strongly related to fields of the study, that is, Factor 1 'Strategies for Improving One's Language Skills', Factor 2 'Strategies for Updating One's General Knowledge of English', and Factor 3 'Strategies for Preparing Oneself for Classroom Lessons'. The main underlying relationship between students' reported strategy use and fields of the study is in the use of almost all individual learning strategies in all main categories except strategies in Factor 4 'Strategies for Helping Oneself Understand What Is Learned in Class' through intra-personal interaction strategies in the 'Under' category; i.e. UnderINTRA 3: Taking notes while studying, UnderINTRA 5: Trying to understand English by translating into Thai, UnderINTRA 2: Avoiding talking with other students while studying, and UnderINTRA 6: Consulting a dictionary.

- Discussion

As evidenced in Chapter 2, a number of research has been carried out and reported a difference of language learning strategies used by students from different fields of study (e.g. Politzer and McGroarty, 1985; Mochizuki, 1999; Peacock and Ho, 2003). These studies investigate discipline differences in relation to their use of language learning strategies. Most of them focus on comparing language learning strategies used by students majoring in English and other disciplines. The studies reported that students studying in English major generally used significantly more language learning strategies than did those studying in other disciplines.

Parallel to the findings of the present investigation, they conclude that the overall strategy use of the students studying in the non-science field is significantly higher than those studying in the science field, and more interestingly none of individual learning strategies was used more with a higher reported frequency by science students. The findings further show that fields of study were significantly related to students' choice of strategy use, especially out-side classroom learning strategies used to improve English skills and expand general knowledge of English.

One possible explanation for the tentative conclusion that might be drawn from the findings is students' motivation. Ellis (1994: 715) defines motivation as "the effort which learners put into learning an L2 as a result of their need or desire to learn it." Similarly, Gardner (1985) refers motivation as "the extent to which the individual works or strives to learn the language because of a desire to do so and the satisfaction experienced in this activity" (cited in Tremblay and Gardner, 1995: 506). In this regard, looking at overall findings showing sharp differences between these two groups of fields of study, the findings reflect the fact that non-science students not

only are better motivated to learn English than science ones, but also take more seriously the need to practice by employing a wider range of strategies. It could be implied that the science students might be uninterested in English and/or did not enjoy learning English. Due to the order of frequency, they seem did not need English; that they neither needed nor enjoyed the foreign language and/or that they did not have time for it (or that it was a low priority). On the other hand, non-science students were relatively more motivated in learning English meant more learning, and that they needed more input and practice than they received in the classroom. They, therefore, seek any favourable opportunities, especially with media utilization e.g. television programs, English-speaking films, songs, books, magazines, newspaper, on-line materials, to expose themselves of extra English practice outside the classroom instead of waiting for heaven-sent opportunities.

7.2.1.5 Research Question 5: Do students' choices of language learning strategies vary significantly according to the types of academic programs they are studying? If they do, what are the main patterns of variation?

In response to the fifth research question, an attempt to examine variation in use of language learning strategies as well as patterns of variation was conducted and then reported in Chapter 6. As found in the strategy questionnaire responded to by 1,134 public university freshmen in Thailand, the findings at four different levels of data analysis and the results of a factor analysis in relation to types of academic programs can be summarized as follows:

- Overall Strategy Use

In response to the fifth research question, the results of the ANOVA show significant variations of students' reported overall language learning strategy use in

relation to types of academic programs; that is, international program students reported employing language learning strategies more frequently than regular program students to prepare themselves for classroom lessons (Prep), understand while studying in class (Under), improve their language skills (Imp), and expand their general knowledge of English (Exp).

- Use of Individual Language Learning Strategies

The chi-square tests show that use of 35 out of 44 individual language learning strategies (79.55%) varied significantly according to types of academic programs, with a greater percentage of students studying in the international program students reporting high frequency of use of all mentioned 35 strategies than those studying in the regular programs. Approximately 80 per cent of the individual language strategies (35 out of 44) in the four main categories of the strategy inventory were used more by international program students. The results also show that the strategies which more than half of the international program students reported employing at a high use level vary, with 74.5 per cent reporting employing strategy to help understand what is learned in class through inter personal interaction by double checking what is learned with friends in class (UnderINTER 2) and 60.1 per cent participating in the classroom activities (UnderINTER 6), 67.9 per cent reporting using strategy for after class preparation by doing homework or assignments (PrepA 3), and 62.4 per cent reporting using strategy for expanding general knowledge of English by using a dictionary for vocabulary enrichment (ExpNM 5). Similarly, the four highest per cent of them reported employing the same strategies used by international program students; that is, 61.8 per cent reporting employing strategy to double check what is learned with friends in class (UnderINTER 2), 55.0 per cent reporting using strategy to do

homework or assignments (PrepA 3), 49.9 per cent reporting strategy of using a dictionary for vocabulary enrichment (ExpNM 5), and 47.3 per cent reporting strategy of participating in the classroom activities (UnderINTER 6).

- Factor Analysis Results

The results of a factor analysis show that three factors were found to be strongly related to types of academic programs; that is, Factor 1 ‘Strategies for Improving One’s Language Skills’, Factor 2 ‘Strategies for Updating One’s General Knowledge of English’, and Factor 3 ‘Strategies for Preparing Oneself for Classroom Lessons’. The main underlying relationship between students’ reported strategy use and types of academic programs is in the use of almost all individual learning strategies in all main categories except strategies in Factor 4 ‘Strategies for Helping Oneself Understand What Is Learned in Class’ through intra-personal interaction strategies in the ‘Under’ category; i.e. UnderINTRA 3: Taking notes while studying, UCINTRA 5 Trying to understand English by translating into Thai, UnderINTRA 2: Avoiding talking with other students while studying, and UnderINTRA 6: Consulting a dictionary.

- Discussion

To date, little past empirical study has been carried out initially to examine the relationship between this variable and students’ use of language learning strategies. The present study, therefore, aims at exploring such a relationship to see whether or not the different types of academic programs in which students are studying will influence their use of language learning strategies. According to academic programs for undergraduate level in the formal system of Thailand’s education nowadays, they can be classified into two types: regular and international.

The findings of the present investigation reveal that of the two types of academic programs, the overall strategy use of the students studying in international programs is significantly higher than those studying in regular programs. The findings of this study suggest that the types of academic programs in which students are studying were significantly related to their choice of strategy use classified in the four main categories, especially for improving their language skills with an assistance of media utilization. With a little support of previous empirical research, a possible way in which learners significantly differ in language learning strategy use could be explained is according to the dimensions of language learning atmosphere and availability of mass media utilization. These two hypothesized factors are taken into account a possible explanation regarding a basic distinction relating to the choice of students' language learning strategy use. The outstanding findings which are worth discussing are significant differences of strategy use between students studying in international programs and those studying in regular programs.

In Thailand nowadays, among 23 public universities in Thailand, there are 11 public universities offering international programs along with regular programs (Weerathaworn, 2004). Noticeably, international programs have been considered as higher technology-assisted and more foreigner-staffed classroom learning management than regular programs. Their students, therefore, have better exposure to the target language atmospheres in which authentic English practice can be more promoted. Added to that, this may also reflect the socio-economic status of students. Typically, most of them are from medium to high socio-economic families who could afford the international program education at great expense. As a result, it would not be troublesome for them to access to the resourceful mass media when and where they

actively seek practice. The provisions of mass media utilization are handily available for them in both formal and free learning settings.

In summary, some possible explanation hypothesized by the researcher for the significant differences in the strategy use by students studying in different types of academic programs may be accounted for by different language learning atmospheres, and access to and provision of the facilities for media utilization. However, it cannot be definitely certain about what really caused these significant differences. Calling for more research in the future, therefore, is needed to give a clearer understanding regarding the relationship between use of language learning strategies and types of academic programs.

7.2.1.6 Research Question 6: Do students' choices of language learning strategies vary significantly according to their English learning experiences? If they do, what are the main patterns of variation?

In response to the sixth research question, an attempt to examine variation in use of language learning strategies as well as patterns of variation was conducted and then reported in Chapter 6. As found in the strategy questionnaire responded to by 1,134 public university freshmen in Thailand, the findings at four different levels of data analysis and the results of a factor analysis in relation to English learning experiences can be summarized as follows:

- Overall Strategy Use

In response to the sixth research question, the results of the ANOVA show significant variations of students' reported overall language learning strategy use in relation to English learning experiences; i.e. more experienced language learning (more than 8 years of English learning) students reported more frequent overall

strategy use than less experienced language learning (8 years of English learning or less) students for preparing themselves for classroom lessons (Prep), understanding while studying in class (Under), improving their language skills (Imp), and expanding their general knowledge of English (Exp).

- Use of Individual Language Learning Strategies

The chi-square tests show that use of 26 out of 44 individual language learning strategies (59.10%) varied significantly according to English learning experiences, with a greater percentage of students with more experienced language learning reporting high frequency of use of all mentioned 26 strategies than those with less experienced language learning, and none of individual learning strategies was used more with a higher reported frequency by less experienced ones in the way that they used language learning strategies to achieve the purposes of strategy use in the four main categories.

The results indicate that more than half of more experienced learning students reported employing at a high use level vary, with 66.8 per cent reporting employing strategy to help understand what is learned in class through inter personal interaction by double checking what is learned with friends in class (UnderINTER 2) and 52.0 percent reporting employing participating in the classroom activities (UnderINTER 5); while to achieve the same purpose through using intra personal interaction - 56.9 of them reporting employing taking notes while studying (UnderINTRA 3), and 54.8 per cent reporting using thinking to oneself with the teacher's instruction (UnderINTRA 4). In addition, more or less the same amount of them employed at high use of after class preparation strategy; i.e. 59.5 per cent doing homework or assignments (PrepA 3). Similar to strategy use of less experienced learning students,

among the top strategies they used mostly were those for understanding while studying in class e.g. double checking what is learned with friends/classmates (UnderINTER 2), taking notes while studying (UnderINTRA 3), thinking to oneself along with the teacher's instruction (UnderINTRA 4), and participating in the classroom activities (UnderINTER 6).

- Factor Analysis Results

The results of a factor analysis show that three factors were found to be strongly related to English learning experiences; that is, Factor 1 'Strategies for Improving One's Language Skills', Factor 2 'Strategies for Updating One's General Knowledge of English', and Factor 4 'Strategies for Helping Oneself Understand What Is Learned in Class' through intra-personal interaction strategies in the 'Under' category. The main underlying relationship between students' reported strategy use and English learning experiences is in the use of strategies for improving language skills, updating general knowledge of English, and helping understand what is learned in class, but not those for preparing themselves for classroom lessons in Factor 3; i.e. PrepB 1: Studying the course details before hand; PrepA 2: Attempting to revise today lessons; PrepB 2: Preparing oneself physically; PrepA 5: Practicing what is learned in class with the teacher; PrepA: 4 Personally approaching the teacher by asking the teacher for clarification of what is learnt in class; and PrepA 6: Discussing L2 learning problems with the teacher.

- Discussion

Specifically in this study, "English learning experiences" are classified into two groups: more experienced (more than 8 years of language learning); and less experienced (8 years of language learning or less) based on the National Education

Act of 1999, Thailand's formal system of education; that is, children mostly formally learn English approximately 8 years before starting at the tertiary level. However, it would not say that every primary school in Thailand could follow this regulation, especially remote area schools. The classification, thus, aims to cover most learners as many as possible.

The findings of the study reveal that students with more English learning experiences reported employing both overall and individual language learning strategies significantly higher than those with less English learning experiences in the four main categories, especially those used to help understand what is learned in class with inter personal interactions. To date, little previous empirical evidence displaying strong relationship between previous language learning experiences and students' use of language learning strategies e.g. Oxford and Nyikos (1989) and Wharton (2000).

Inconsistent with the findings of the present investigation, the difference of previous language learning experiences (in terms of more or less language learning experiences) manipulate students' use of language learning strategies. To support the findings of such relationship, one common factor would be hypothesized to explain this phenomenon is students' favourite learning styles. Cohen (1998: 15) defines learning styles as 'general approaches to learning', and Gardner and Miller (1999: 157) consider learning styles as 'the ways learners like or dislike learning a language.' Looking closely at the individual strategy item level, the students with both more and less language learning experiences reported more or less the same language learning strategy use; i.e. using the language learning strategies to improve language skills, update general knowledge of English, and help themselves understand what is learned in class, but not to prepare themselves for classroom lessons. These findings could

imply that the learning styles among the public university freshmen were actively participant and collaborative students in classrooms, and dependent learners seeking extra practice and input outside the classroom, but not classroom well-prepared students. Such students may consider classroom as a knowledge-feeding place. They, therefore, prefer go to classes and have classroom participations with friends, while taking responsibilities for classroom preparation might not worth the effort (or they lacked time to do the necessary extra work for lesson preparation before the classroom).

7.2.1.7 Research Question 7: Do students' choices of language learning strategies vary significantly according to their levels of language proficiency? If they do, what are the main patterns of variation?

In response to the seventh research question, an attempt to examine variation in use of language learning strategies as well as patterns of variation was conducted and then reported in Chapter 6. As found in the strategy questionnaire responded to by 1,134 public university freshmen in Thailand, comparing with the other four variables, this variable seems to have the strongest relationships with students' choices of strategy use, with a greater proportion of significant variations in students' use of individual strategies across the strategy inventory found to be related to their proficiency levels. The findings at four different levels of data analysis and the results of a factor analysis in relation to levels of language proficiency can be summarized as follows:

- Overall Strategy Use

In response to the seventh research question, the results of the ANOVA show significant variations of students' reported overall language learning strategy use in

relation to levels of language proficiency. The post hoc Scheffé Test results show that high proficiency students reported more frequent overall strategy use than lower ones, and significant variations in the overall strategy use were found among them; i.e. high language proficiency students reported employing language learning strategies more frequently than moderate and low language proficiency students in order to prepare themselves for classroom lessons (Prep), understand while studying in class (Under), improve their language skills (Imp), and expand their general knowledge of English (Exp).

- Use of Individual Language Learning Strategies

The chi-square tests show that use of 39 individual strategies (88.64 %) varied significantly according to levels of language proficiency, with a greater percentage of high language proficiency students reporting high frequency of use of almost all mentioned 39 strategies than lower language proficiency students. These strategies were found with variously significant variation with positive (high>moderate>low) and mixed patterns of variation (moderate>low>high). The results display that almost all of them were positive pattern of variation; 35 individual strategies, while the rest four individual strategies were mixed pattern of variation; moderate>low>high. These four strategies include strategies employed by 55.6 per cent of students to double check what is learned with friends/classmates (UnderINTER 2), by 51.9 per cent to do homework or assignments (PrepA 3), 44.4 per cent to take notes while studying (UnderINTRA 3), and 44.4 percent to understand English by translating into Thai (UnderINTRA 5). Opposite to high proficiency students, the top three strategies highly reported were used to improve their language skills rather than to prepare for classroom or understand classroom lessons; i.e. more than half of them reported

employing strategies to improve their listening and speaking skills of English with media utilization e.g. 70.4 per cent watching English-speaking films (ImpM 5), 63.0 per cents watching television programs in English (ImpM 6), and another 63.0 per cent imitating a native speaker from media (ImpM 9).

- Factor Analysis Results

The results of a factor analysis show that all four factors were found to be strongly related to levels of language proficiency; that is, Factor 1 ‘Strategies for Improving One’s Language Skills’, Factor 2 ‘Strategies for Updating One’s General Knowledge of English’, Factor 3 ‘Strategies for Preparing Oneself for Classroom Lessons’, and Factor 4 ‘Strategies for Helping Oneself Understand What Is Learned in Class’. The main underlying relationship between students’ reported strategy use and levels of language proficiency is in the use of almost all individual learning strategies in all main categories, but less strongly related to strategies in Factor 4 ‘Strategies for Helping Oneself Understand What Is Learned in Class’ through intra-personal interaction strategies in the ‘Under’ category; i.e. UnderINTRA 3: Taking notes while studying, UnderINTRA 5: Trying to understand English by translating into Thai, UnderINTRA 2: Avoiding talking with other students while studying, and UnderINTRA 6: Consulting a dictionary.

- Discussion

A great number of previous studies investigating the use of language learning strategies by students with different levels of language proficiency have concluded that higher-proficiency students generally reported employing learning strategies significantly more frequently than did lower-proficiency students. Examples are Bremner (1999), Green and Oxford, (1995), Intaraprasert (2000), Oxford and Nyikos

(1989), Peacock and Ho (2003), Wharton (2000). This investigation also discovers the consistent results as formerly shown.

Based on the findings of the present investigation, higher-proficiency students reported greater overall strategy use than did lower-proficiency students. The findings show significant differences among the students with different proficiency levels in all four main language learning strategy categories.

In the level of individual language learning strategy use, the individual learning strategies were found with variously significant variation with positive (high>moderate>low) and mixed patterns of variation (moderate>low>high). In details, these results display that almost all of them were positive patterns of variation. The top three positive pattern strategies highly reported were used to improve their language skills rather than to prepare for classroom or understand classroom lessons, especially to improve their listening and speaking skills of English with media utilization e.g. watching English-speaking films (ImpM 5), watching television programs in English (ImpM 6), and imitating a native speaker from media (ImpM 9). However, there were four individual strategies showing mixed pattern of variation; moderate>low>high. These four strategies include strategies employed to double check what is learned with friends/classmates (UnderINTER 2), to do homework or assignments (PrepA 3), to take notes while studying (UnderINTRA 3), and to understand English by translating into Thai (UnderINTRA 5).

However, another argument of relationship existing between strategy use and proficiency level has been discussed among formerly various studies. A number of them have been devoted to discussing this argument, and then confirm a mutual relationship between language proficiency and strategy use (e.g. Bremner, 1999;

Green and Oxford, 1995; Wenden, 1987). In other words, strategy use and proficiency are both causes and outcomes of each other; active use strategies help students attain higher proficiency, which in turn makes it likely that students will select these active use strategies. A similar argument to these studies comes from the findings of this study. Some hypothesized factors that could be picked up to explain this complicated relationship involve not only learner-internal factors e.g. motivation, beliefs, effort, attitudes (as stated by a number of researchers in the field of language learning strategy study), but also learner-external factors, specifically the application of media. The dominant presence of media in the students' lives in Thai public universities.

Added to that, the present study discovers that higher-proficiency students expend more effort to increase language production opportunities by selectively employing certain types of language learning strategies to practice English through films, television programs, and other types of media. As early researchers' attempts to propose some lists of strategies and other features presumed to be essential for all "good L2 learners" e.g. Naiman et al. (1975), Rubin (1975), and Chamot and Küpper (1989), successful language learners are likely to select strategies that work well together in an effective way, tailored to the requirements of the language tasks. Additionally supported by the study of Wharton (2000), successful language learners who are more motivated tend to use more strategies than unsuccessful students, and the particular reason for studying the language was important in the choice of strategies. Similar to the findings of this study, higher-proficiency students tend to willingly invest their time and energy in English learning even in their leisure time; they like watching English films and television programs, listening to English songs

and tapes, or reading on-line English materials. The discovery of the present study implies that higher-proficiency students seemed to have a strong desire to become good language learners, and never want to lag behind others. This may help which helped them to maintain their effort in learning English inside and outside the classrooms. This may be able to explain that higher-proficiency students who are more motivated tended to use more strategies than less motivated students, and the particular reason for studying the language was important in the choice of strategy use.

However, the findings further point out that these higher-proficiency students seemed to put less effort for using classroom-related language learning strategies than the lower proficient students; i.e. double check what is learned with friends/classmates, do homework or assignments, take notes while studying, and understand what is learned in class by translating English into Thai. In this matter, it could be assumed that higher-proficiency students might think that they had learnt a small amount of English in classes, and they subsequently found that their knowledge was insufficient. They then became less motivated in classroom lessons. Considerably different to lower-proficiency students, they did not seem to be aware that learning and practicing English with media utilization outside the classroom could represent an important part of their learning. Instead, these students likely hold classroom-based achievement aims to find the ways helping them follow the classroom instruction rather than enlarge their general English knowledge or improve their language skills outside the classroom. The researcher probably concludes from this phenomenon that learners' language learning strategy use possibly related to their learning needs and aims, rather than learners' language proficiency per se.

7.3 The Interrelationships of Patterns of Significant Variations in Strategy Use among the Five Variables

In Chapter 6, significant variations in students' reported use of language learning strategies at different levels resulting from the ANOVA and chi-square tests were discovered, together with the emergent patterns of significant variations in relation to the five investigated variables. This section aims to explore the interrelationships of certain patterns of significant variations in students' reported strategy use among those variables, by the way of possible explanation, of such significant variations.

On the basis of the research findings indicated in Chapter 6, the frequencies of students' reported use of a total 44 individual learning strategies across the strategy questionnaire were found to vary significantly in association with at least one of the five variables. Seventeen of these learning strategies which are worth exploring further were found to vary significantly by all five investigated variables. To some extent, an interrelationship has been found among the variables in terms of significant variations in use of strategies could be possibly explained for such interrelationship. In this perspective, the researcher has an attempt to illustrate the interrelationship of the variables with regard to the distribution of the research population. The explanation of the interrelationships concerns some crucial patterns of significant variations in frequency of students' reported strategy use.

What follow are some possible explanations for patterns of significant variations of seventeen learning strategies which were discovered to be related to all variables. Table 7.1 below displays these interrelationships. The table demonstrates the significant variations in use of seventeen learning strategies of the four main

language learning strategy categories found to be related to all investigated variables. From the table, it could be said that there are two patterns of interrelationships: positive and mixed patterns. Of the seventeen learning strategies, there are thirteen strategies found positively interrelated to all five variables; i.e. significantly greater percentage of strategy use by female, international program, non-science field of study, more language learning experienced, and high language proficient students. On the other hand, there are four learning strategies found interrelated to all five variables at mix: PrepA 3: Doing homework or assignments; UnderINTRA 3: Taking notes while studying; UnderINTRA 5: Trying to understand English by translating into Thai; and UnderINTER 2 Double checking what is learned with friends. These four strategies were reportedly used with significantly greater percentage more or less the same to the first thirteen strategies; i.e. by female, international program, non-science field of study, and more language learning experienced, but with lower language proficient students.

Table 7.1: Interrelationship of Patterns of Significant Variation in Use of Strategies and All Investigated Variables

Individual Strategy	Patterns of Variation by Variables				
	Gender	Types of Programs	Fields of Study	Learning Experiences	Proficiency Levels
PrepA 1 Reviewing own notes/ summary	Female>Male	International>Regular	Non-Science>Science	More>Less	Positive
PrepA 3 Doing homework or assignments	Female>Male	International>Regular	Non-Science>Science	More>Less	Mixed
UnderINTRA 1 Trying to get a seat in the front row	Female>Male	International>Regular	Non-Science>Science	More>Less	Positive
UnderINTRA 3 Taking notes while studying	Female>Male	International>Regular	Non-Science>Science	More>Less	Mixed

Table 7.1 (contd): Interrelationship of Patterns of Significant Variation in Use of Strategies and All Investigated Variables

Individual Strategy	Patterns of Variation by Variables				
	Gender	Types of Programs	Fields of Study	Learning Experiences	Proficiency Levels
UnderINTRA 4 Thinking to oneself along with the instruction	Female>Male	International>Regular	Non-Science>Science	More>Less	Positive
UnderINTRA 5 Trying to understand English by translating into Thai	Female>Male	International>Regular	Non-Science>Science	More>Less	Mixed
UnderINTER 2 Double checking what is learned with friends/classmates	Female>Male	International>Regular	Non-Science>Science	More>Less	Mixed
UnderINTER 3 Joining a language study group	Female>Male	International>Regular	Non-Science>Science	More>Less	Positive
ImpM 6 Watching television programs in English	Female>Male	International>Regular	Non-Science>Science	More>Less	Positive
ImpM 7 Listening to English songs or cassette tapes	Female>Male	International>Regular	Non-Science>Science	More>Less	Positive
ImpM 9 Imitating a native speaker from media	Female>Male	International>Regular	Non-Science>Science	More>Less	Positive
ImpNM 1 Practicing writing with English texts	Female>Male	International>Regular	Non-Science>Science	More>Less	Positive
ImpNM 3 Talking to oneself in English	Female>Male	International>Regular	Non-Science>Science	More>Less	Positive
ExpNM 1 Having extra tutorials	Female>Male	International>Regular	Non-Science>Science	More>Less	Positive

Table 7.1 (contd): Interrelationship of Patterns of Significant Variation in Use of Strategies and All Investigated Variables

Individual Strategy	Patterns of Variation by Variables				
	Gender	Types of Programs	Fields of Study	Learning Experiences	Proficiency Levels
ExpNM 8 Giving tutorials to others	Female>Male	International>Regular	Non-Science>Science	More>Less	Positive
ExpNM 4 Having own notebooks	Female>Male	International>Regular	Non-Science>Science	More>Less	Positive
ExpNM 5 Using a dictionary for vocabulary enrichment	Female>Male	International>Regular	Non-Science>Science	More>Less	Positive

In conclusion, the findings of the present investigation, presented and discussed in Sections 7.2 and 7.3, are basically consistent with the former studies as shown in Chapter 2 in light of strong relationships found between all investigated variables and students' language learning strategy use. These relationships could be divided into two patterns: one-directional and two-directional. For the first pattern, there are four variables considerably found having positive causal relationships with strategy use. These variables include gender of students (female), types of academic programs (international), fields of study (non-science), and English learning experiences (more English learning experiences). Only one variable is considered to have two-directional relationship with strategy use; i.e. English proficiency levels. This may come to the conclusion that the relationship between proficiency levels and strategy use remains complex and calling for further studies are needed in the future.

7.4. Implications of the Research Findings for the Teaching and Learning of English for Public University Freshmen in Thailand

The research findings summarized earlier in response to the research questions demonstrate that there is a relationship between gender of students, types of academic programs, fields of study, language learning experiences, and language proficiency levels, and students' use of language learning strategies. Following are some implications from the study drawn with the foremost concern that in the real world of English teaching and learning, the changes are two sides of the same coin; effective learning, like good teaching. Similar to the teaching and learning of English for public university freshmen in Thailand, perhaps a practical attempt to improve the teaching and learning of English ought to consider both teachers and students at the same time.

1. Based on one of the significant findings of this investigation, as a whole, it is truly interesting that the greatest number of Thai public university freshmen reported employing strategies to achieve classroom-unrelated rather than classroom-related purposes. More precisely, these students reported employing language learning strategies for seeking opportunities to improve their English language skills, and expand their general knowledge of English outside the classroom more frequently than those for classroom-achievement purposes e.g. preparing themselves for classroom lessons and for understanding what is learned in class. Students seem to pay less attention to use the in-class related strategies than out-of-class ones. It could be hypothesised that while studying in class, students might lack opportunities to set their own goals, and teaching is restrictive, formal, and mostly geared towards exams. With passiveness or lack of activeness in learning in class, students just pay attention

to teachers' instructions, so as to obey classroom regulations. On the other hand, students seem to be more active and independent outside the classroom settings. With a wider range and higher frequency of strategy use, students preferred out-of-class learning with various learning activities e.g. listened to radio programs, played English video games, watched English movies, and participated in informal English classes.

What is needed is for teachers to modify their teaching strategies or styles through a clearer insight into their effects on students' language learning strategies. Based on the research findings, the provision of media in the formal L2 teaching and learning setting would be an alternative way in this regard to increase students' motivation. Accordingly, some teacher training courses are considerably required to empower them carry out their media-aided instructions as effectively as possible. In addition, beyond the formal learning, promoting out-of-class language learning strategies should be more focused. What is needed is for teachers to explicitly encourage or direct students to go beyond the classroom goals; getting students to invest their own personal time, effort, and attention to have out-of-class practice opportunities with a range of supplementary activities outside the classroom. As Intaraprasert (2000) supports, the language teachers' provision of media in various forms is recommended as an alternative means of input sources of the target language for their students.

2. Arising out from the first implication, it would be worthwhile trying to promote language learning strategy use by encouraging students to raise their awareness and to think about ways for using appropriate language learning strategies. This suggestion would be related to the concept of autonomous learning focusing on

individual needs and individual goals. The differences in the frequency and choice of use among different learners, the successful language learners have the ability to combine particular types of language learning strategies in effective ways according to their own learning needs (Chamot and Küpper, 1989). Similar to the findings of the study, the students reported employing a variety of language learning strategies. Not only do the same students vary their use of language learning strategies in response to different perceived requirements, but different students differ in their individual purposes of language learning strategy use e.g. for classroom preparation, lesson comprehension, skill improvement, knowledge expansion.

Following this concept, it is somehow valuable to help individual students to become more aware of their benefits gained from exploring their personal strategies which effectively serve their various needs of learning strategy use. Although students may differ in their knowledge of strategies, understanding about attributions for successful strategy use should be suggested to guide them to become more purposeful learners of the target language. As Ellis (1994) states, the beneficial effect of strategies maybe relative to the kinds of tasks that strategies are deployed in. Teachers, therefore, may introduce the learning strategies and demonstrate how to take appropriate strategies to meet students' needs in different learning tasks. Numerous practices would help students more familiar with the various learning strategies, then they become mature into using those different strategies automatically.

3. Numerous studies have shown that second language proficiency/achievement is related to language learning strategies (e.g. Bremner, 1999; Intaraprasert, 2000; Oxford, 1989; Wharton, 2000). Thus, to facilitate the learners' effective language learning, language learning strategies is a key point for instructors

to pay attention to. One way to help students improve learning outcomes is that the strategy training should be integrated into the normal language curriculum. As some scholars have developed a number of models for language learning strategy instruction (e.g. Styles and Strategies-Based Instruction (Cohen, 1998), Cognitive Academic Language Learning Approach (Chamot, 2005 and Chamot et al., 1999), and The Grenfell and Harris Model (Grenfell and Harris, 1999), that means use of strategies can be teachable and trainable. Added to that, there is sufficient evidence that strategy training programs benefit many students not only high achieving students, but also underachieving ones (Benson, 1995; Chamot, 1996; Chamot and O'Malley, 1996; Cohen, 1998; Dickenson, 1992; Macaro, 1997; Nunan, 1997; Wenden, 1998). This benefit could empower students to be more successful with a sense of what language learning strategies are and how they can develop their own and apply them effectively (Brown, 1993).

7.5 Contributions of the Present Investigation

The present investigation has made some major contributions to the area of language learning strategies. These contributions can be characterized as follows:

1. As mentioned earlier in Chapter 2, a small amount of research on language learning strategies has been carried out with Thai students; however, it has been limited to investigating the relationship between strategy use and students' language proficiency levels. The present investigation at least has uncovered and widened the focal points of study through a variety of investigated variables: gender of students; types of academic programs; fields of study; language learning experience; together with language proficiency.

2. With the concerns of the practicality of the instrument and the context, the researcher would rather make an effort to systematically produce a language learning strategy inventory for investigating the use of language learning strategies in the context of Thailand, than borrow the already-existing instruments (noted in Chapter 2) drawn from language learners in other contexts. The emergent strategy inventory was directly obtained through the self-reported data of students' oral interviews. Besides, this inventory itself may be useful in some extent to similar contexts, particularly EFL learning contexts. If the inventory content is not suitable for other contexts, the inventory-generating process maybe somehow served as a guide for other researchers to construct their own language learning strategy inventory as it is always amenable.

3. Both qualitative and quantitative methods were used together to elicit information about language learning strategies used by Thai public university freshmen. Truly time-consuming data analyses emerged when using multiple methodologies, coding and statistical methods were accordingly organizational. The process of data analyses of this study, hopefully, could be a guide or an example helpful for other researchers to apply in analyzing similar types of reported data.

7.6 Limitations of the Present Investigation and Proposals for Future Research

Systematically-conducted research is valuable in addressing the primary research questions to cover types of language learning strategies reported by Thai public university freshmen, together with variation patterns and relationships of such learning strategies at different levels with reference to each investigated variable. However, it is impossible to judge that this research work is flawless. In carrying out

the research, certain limitations have been apparent. The researcher will present them as follows for future research directions.

1. The result indicates that the participants in this research reported using out-of-class language learning strategies to improve their language skills with media utilization more frequently than other language learning strategy categories. It could be understood that in the past decades, students have spent more leisure time seeking opportunities for English practice outside the classroom with reliance to various forms of media e.g. watching English-speaking films, watching television programs in English, and imitating a native speaker from media, and so on. The researcher summarizes that this high use of out-of-class language learning strategies in English skill improvement might be due to the media utilization. This utilization might relate to the way L2 is learned and practiced. The utilization of media and its influence on language learning strategy use warrants further research.

2. To shed some light on L2 learning strategies, both quantitative and qualitative research should work together to produce larger, clearer pictures of what has occurred in the Thai EFL context. The quantitative-based research carried out in this study uncovered deeper meanings in terms of the continuity of students' goals and strategy-use patterns over time. So, no direct evidence of development can be presented here. It would be interesting if truly rich research can emerge in the future to increase more understanding public university students' strategy-use patterns in learning English as a foreign language (EFL) in Thailand. Examining the longitudinal stability of these patterns is strongly suggested as an alternative form of future research in which students themselves have time to report a process of learning development during their time in higher education.

3. The next limitation issue that should also be discussed here results from the narrowly focal point of the study; i.e. the target participants. This is because this study aims to study language learning strategies specifically used by Thai public university freshmen. All the participants, therefore, were first-year students from 21 limited admission universities in Thailand. The findings would be more useful if we recruited students from other types of universities, e.g. open admission universities, private universities, vocational colleges, teacher universities and so on, then compared their choices of language strategy use. The extent to which the specific patterns of strategy use would occur in other types of universities is needed. To get a whole picture of the trends of Thai tertiary students' strategy use, tertiary students with different types of universities and different years of study should be included in the future.

4. Not all public university freshmen's language learning strategies were included in the study's questionnaire; the researcher-generated inventory. The language learning strategies in this study were limited to those appearing in the study questionnaire, although the researcher solved this limitation by providing some blank spaces for students to add their additional language learning strategies. But there was a small number of them did that. To increase the reliability of the research and validity of the data, the research suggests further studies employing follow-up interviews to find out more in-depth data of language learning strategy use, that do not exist in the questionnaire items.

5. The use of self-rating language proficiency in this study is limited and based only on the individual respondent's perceptions. According to the findings of the study, approximately 60% of the participants perceived their own English proficiency

levels as just moderate, although some of them have obtained English's GPA above 3.5. Besides, smallest amount of them think their own proficiency levels are high. These perceptions might be a result of the Thai culture's value of modesty, or a lack of self-confidence, or humble ones. The evaluation basis of their self-perception of English proficiency also needs to be taken into consideration to future research. Further studies maybe needed to investigate the differences between students' self-perceived proficiency levels and their objective proficiency levels, which perhaps could be evaluated via standardized tests e.g. TOEFL, or IELTS.

7.6 Conclusion

The present investigation has contributed to the area of language learning strategy studies in light of language learning strategy classification, and the investigated variables. One of the major contributions has been the classification system of language learning strategies which public university freshmen in Thailand reported employing in dealing with English language learning. The language learning strategies have been classified according to the language purposes to be achieved; i.e. classroom preparation, lesson comprehension, skill improvement, and general knowledge expansion, as reported by the research population. Of the five investigated variables, three (types of academic programs, fields of study, and language learning experiences) have rarely been or never taken into consideration by any other former researchers in this area.

Finally, the researcher has suggested some pedagogical implications emerging from the research findings for the teaching and learning of English to public university freshmen in Thailand. In addition, limitations of the present investigation

and some proposals for further research have been provided to guide this area to greater study of language learning strategies that remain to be considered as the important tools learners can make use of to become more autonomous and improve learning outcomes.

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APPENDICES

Appendix A

List of Public Universities

List of Public Universities Offering International Programs

LIMITED ADMISSION UNIVERSITY	INTERNATIONAL PROGRAM								
	Management/ Administration	Information Technology	Economics	Engineering	Science/ Technology	Computer Science	Thai Studies	Architecture	Others
Chulalongkorn University									
King Mongkut's Institute of Technology									
Mahidol University									
Naresuan University									Law
Prince of Songkla University									
Silpakorn University									Art and Visual Communication
Srinakharinwirot University									
Thammasat University									British & American Studies
King Mongkut's University of Technology Thonburi									
Mae Fah Luang University									English Studies

Appendix B

List of Public Universities in Thailand

Limited-Admission Public University	Location	Offering	
		Both Types of Programs	Both Areas of Study
1. Chiang Mai University	North		X
2. Maejo University	North		X
3. Naresuan University	North	X	X
4. Mae Fah Luang University	North	X	X
5. Prince of Songkla University	South	X	X
6. Walailuk University	South		X
7. Khon Kaen University	Northeast		X
8. Mahasarakham University	Northeast		X
9. Ubon Ratchani University	Northeast		X
10. Suranaree University of Technology	Northeast		Science-Oriented
11. Burapha University	East		X
12. Chulalongkorn University	Central	X	X
13. Kasetsart University	Central		X
14. King Mongkut's Institute of Technology	Central	X	X (Japanese Studies)
15. King Mongkut's Institute of Technology North Bangkok	Central		Science-Oriented
16. Mahidol University	Central	X	X
17. Silpakorn University	Central	X	X
18. Srinakharinwirot University	Central	X	X
19. Thaksin University	Central		X
20. Thammasat University	Central	X	X

21. King Mongkut's University of Technology Thonburi	Central	X	Science- Oriented
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Appendix C

Interview Timetable (Phase 1 of Data Collection)

Interview Timetable (Phase 1 of Data Collection)

University	Location	Faculty	Program	No. of Student	Area of Study	Language Proficiency	Gender
Suranaree University of Technology	Regional	- Institute of Engineering	Regular	4	Science	2 Moderate, 2 Low	1 Male/ 3 Females
		- Institute of Social Technology	Regular	9	Non-Science	1 High, 2 Moderate, 6 Low	3 Males/ 6 Females
Naresuan University (Pitsanulok Campus)	Regional	- International College (Laws)	International	6	Non-Science	1 High, 4 Moderate, 1 Low	4 Males/ 2 Females
		- Faculty of Allied Health Sciences	Regular	5	Science	3 Moderate, 2 Low	2 Males/ 3 Females
Mahidol University	Bangkok Metropolis	- International College	International	5	Mixed (4 Science, 1 Non-Science)	5 Moderate	2 Males/ 3 Females
		- Faculty of Arts	Regular	5	Non-Science	3 Moderate, 2 Low	2 Males/ 3 Females
Silpakorn University	Regional	- Faculty of Science	Regular	5	Science	1 Moderate, 4 Low	2 Males/ 3 Females
		- Faculty of Education	Regular	5	Non-Science	3 Moderate, 2 Low	2 Males/ 3 Females
				44	18 Science/ 26 Non-Science	2 High, 23 Moderate, 19 Low	18 Males/ 26 Females

Appendix D

Letter of Permission

ที่ ศธ 5612(3)/
เทคโนโลยีสุรนารี

มหาวิทยาลัย

111 ถนนมหาวิทยาลัย

ตำบลสุรนารี อำเภอ

เมือง

จังหวัดนครราชสีมา 30000

ธันวาคม 2548

เรื่อง การเก็บข้อมูลโดยการสัมภาษณ์นักศึกษาปริญญาตรี ชั้นปีที่ 1

เรียน

เนื่องด้วย นางสาวนิศากร ประคองชาติ นักเรียนทุนโครงการพัฒนาอาจารย์ สาขาขาดแคลน (สาขาวิชาภาษาอังกฤษ) ประจำปี 2546 ศึกษาระดับปริญญาเอก (หลักสูตรปริญญาเอกร่วมกับมหาวิทยาลัยต่างประเทศ) รหัสประจำตัว D4620068 และอาจารย์ที่ปรึกษาวิทยานิพนธ์ คือ ผู้ช่วยศาสตราจารย์ ดร. ชาญฉกรรจ์ อินทรประเสริฐ สังกัดสาขาวิชาภาษาอังกฤษ สำนักวิชาเทคโนโลยีสังคม ขณะนี้ นักศึกษาดังกล่าวกำลังทำวิทยานิพนธ์ เรื่อง **Factors Related to the Use of Language Learning Strategies by Public University Freshmen in Thailand** เพื่อให้การทำวิทยานิพนธ์ครั้งนี้เป็นไปด้วยความเรียบร้อย นักศึกษามีความประสงค์ขอความอนุเคราะห์จาก _____ เก็บข้อมูลโดยการสัมภาษณ์นักศึกษาปริญญาตรี ชั้นปีที่ 1 ในวันที่ _____ เพื่อนำข้อมูลจากการสัมภาษณ์มาสร้างเป็นแบบสอบถามประกอบการทำวิทยานิพนธ์ และนักศึกษาขอรับรองว่าการเก็บข้อมูลครั้งนี้ จะไม่ส่งผลกระทบต่อการเรียนการสอนตามปกติในห้องเรียน

ในการนี้ มหาวิทยาลัยเทคโนโลยีสุรนารีใคร่ขอความอนุเคราะห์ให้นางสาวนิศากร ประคองชาติ การเก็บข้อมูลโดยการสัมภาษณ์นักศึกษาปริญญาตรี ชั้นปีที่ 1 ของ _____ ทั้งนี้ หากท่านต้องการข้อมูลเพิ่มเติม กรุณาติดต่อได้ที่นางสาวนิศากร ประคองชาติ เบอร์โทรศัพท์ 01-8872825 หรือ email address: nprakongchati@yahoo.com

ขอแสดงความนับถือ

(ผู้ช่วยศาสตราจารย์ ดร.ศิริลักษณ์ อุสาหะ)

หัวหน้าสาขาวิชาภาษาอังกฤษ
สำนักเทคโนโลยีสังคม มหาวิทยาลัยเทคโนโลยีสุรนารี

Appendix E

Participant Consent Form

แบบฟอร์มใบยินยอมให้ทำการวิจัย

โดยได้รับการบอกกล่าวและเต็มใจ (Informed Consent Form)

การวิจัยเรื่อง

Factors Related to the Use of Language Learning Strategies by Public University Freshmen in Thailand

วันที่ให้คำยินยอม วันที่ เดือน พ.ศ.

ก่อนที่จะลงนามในใบยินยอมให้ทำการวิจัยนี้ ข้าพเจ้าได้รับการอธิบายจากผู้วิจัยถึง วัตถุประสงค์ของการวิจัย และวิธีการวิจัย รวมทั้งประโยชน์ที่จะเกิดขึ้นจากการวิจัยอย่างละเอียด และมีความเข้าใจดีแล้ว

ผู้วิจัยรับรองว่าจะตอบคำถามต่าง ๆ ที่ข้าพเจ้าสงสัยด้วยความเต็มใจ ไม่ปิดบังซ่อนเร้น จนข้าพเจ้าพอใจ

ข้าพเจ้ามีสิทธิที่จะบอกเลิกการเข้าร่วมโครงการวิจัยนี้เมื่อใดก็ได้ และเข้าร่วมโครงการวิจัยนี้โดยสมัครใจ และการบอกเลิกการเข้าร่วมการวิจัยนี้

ผู้วิจัยรับรองว่าจะเก็บข้อมูลเฉพาะที่เกี่ยวกับตัวข้าพเจ้าเป็นความลับ และจะเปิดเผยได้เฉพาะ ในรูปที่สรุปผลการวิจัย การเปิดเผยข้อมูลเกี่ยวกับตัวข้าพเจ้าต่อหน่วยงานต่าง ๆ ที่เกี่ยวข้องกระทำ ได้เฉพาะกรณีจำเป็นด้วยเหตุผลทางวิชาการเท่านั้น

ผู้วิจัยรับรองว่าหากมีข้อมูลเพิ่มเติมที่ส่งผลกระทบต่อการศึกษา ข้าพเจ้าจะได้รับการแจ้งให้ทราบ โดยไม่ปิดบังซ่อนเร้น

ข้าพเจ้าได้อ่านข้อความข้างต้นแล้ว และมีความเข้าใจดีทุกประการ และได้ลงนามในใบยินยอม นี้ด้วยความเต็มใจ

ลงนาม ผู้ยินยอม

ลงนาม พยาน

ลงนาม พยาน

Appendix F

Interview Questions (Thai Version)

ส่วนที่ 1 ประวัติส่วนตัวและการศึกษา

1. ชื่อ
2. สถานที่เกิด
3. การศึกษา
 - 3.1 สาขาที่เรียน
 - 3.2 หลักสูตรที่เรียน
4. การประเมินระดับความสามารถทางภาษาด้วยตนเองในอดีตที่ผ่านมา (สูง กลาง ต่ำ)
5. คุณเริ่มเรียนภาษาอังกฤษเมื่อไร และจนถึงปัจจุบันเรียนภาษาอังกฤษมานานขนาดไหน
6. คุณเรียนภาษาอังกฤษมาจากที่ไหน อย่างไร
7. ตอนที่เรียนภาษาอังกฤษ คุณเรียนอะไรบ้าง
8. คุณจำหนังสือภาษาอังกฤษที่เคยใช้เรียนได้มั้ย หนังสืออะไร
9. โดยปกติที่เคยเรียน ครูที่สอนภาษาอังกฤษใช้ภาษาอังกฤษในการสอนหรือไม่ มากน้อยขนาดไหน
10. คุณได้ใช้ภาษาอังกฤษนอกห้องเรียน หรือไม่
11. คุณได้ฝึกฟังภาษาอังกฤษนอกห้องเรียนหรือไม่
12. ปัจจัยอะไรบ้างที่มีผลต่อความสำเร็จในการเรียนภาษาอังกฤษของคุณ เช่น ครู
สภาพแวดล้อม
นิสัยหรือเทคนิคการเรียนส่วนตัว อย่างไร เพราะเหตุใด

ส่วนที่ 2 กลวิธีการเรียนภาษาอังกฤษ

1. 1 สัปดาห์ในมหาวิทยาลัย เรียนภาษาอังกฤษบ่อยขนาดไหน
2. ตามคำตอบในข้อ 1 คุณคิดว่าเพียงพอหรือไม่ เพราะเหตุใด
3. 2-3 สัปดาห์ที่ผ่านมา ได้ทำกิจกรรมอะไรบ้างที่เกี่ยวกับการเรียนภาษาอังกฤษในห้องเรียน
4. ก่อนเข้าเรียน ระหว่างเรียน และหลังเรียน ทำอะไรบ้างที่ช่วยให้เข้าใจบทเรียนภาษาอังกฤษมากขึ้น
5. ในการพัฒนาภาษาอังกฤษของคุณ คุณทำอะไรบ้างทั้งในห้องเรียน และนอกห้องเรียน

6. คุณเข้ากับเพื่อนร่วมชั้นเรียน หรือครูผู้สอน ได้หรือไม่
7. คุณคิดอย่างไรกับบรรยากาศการเรียนของห้องเรียนภาษาอังกฤษ เมื่อเปรียบเทียบกับห้องเรียนวิชาอื่น
8. กิจกรรมใดบ้างในห้องเรียนที่คุณชอบหรือไม่ชอบ เพราะเหตุใด
9. กิจกรรมใดบ้างในห้องเรียนที่คุณคิดว่ามีประโยชน์มากที่สุด หรือน้อยที่สุด เพราะเหตุใด
10. คุณต้องการให้ครูใช้ภาษาอังกฤษในการสอนหรือไม่ เพราะเหตุใด
11. คุณคิดว่า ครูควรจะพูดภาษาอังกฤษเฉพาะเวลาสอนเท่านั้นหรือไม่ เพราะเหตุใด
12. ช่วยบอกได้มั้ย อะไรง่าย อะไรยากในการเรียนภาษาอังกฤษ
13. เมื่อมีอุปสรรคในการโต้ตอบภาษาอังกฤษ คุณแก้ปัญหาเหล่านั้นอย่างไร
14. เมื่อเกิดข้อผิดพลาด คุณต้องการให้คนอื่นแก้ไขข้อผิดพลาดของคุณทันทีหรือไม่ เพราะเหตุใด
15. คุณรู้สึกอย่างไรเมื่อคนอื่นแก้ไขข้อผิดพลาดทางภาษาอังกฤษของคุณ
16. คุณต้องการอะไรบ้างจากการเรียนวิชาภาษาอังกฤษเพื่อไว้ใช้ในระยะยาว
17. คุณมีประสบการณ์การเรียนภาษาอังกฤษที่อยากจะบอกเพิ่มเติมอีกหรือไม่

Interview Questions (English Version)

Part I – Background & Previous Knowledge

- 1) Name
- 2) Birthplace
- 3) Education:
 - 3.1 Areas of study
 - 3.2 Types of academic program
- 4) Do you consider yourself to be :
 - a. a high language learner
 - b. a moderate language learner
 - c. a low language learner
- 5) When did you start and how long did you learn English?
- 6) Where and under what circumstances did you learn English?
- 7) When you learn English, what did you study? Grammar? Speaking?
- 8) Do you remember what kind of text-books you used, if any?
- 9) Did the teacher speak in the foreign language most of the time?
- 10) Do you remember what kind of homework you had to do?
- 11) Did you have any contact outside the classroom/your home with English native speakers?
- 12) Did you listen to the radio or watch films or TV in English?
- 13) Do you think that your success at learning English is due to the teacher? Or did it have something to do with the environment? Or would you say that you developed some special study habits? Or do you have some particular personal learning techniques that helped you in learning?

Part II – Language Learning Strategies

1. How often do you study English at university?
2. According to 1., do you think it is enough for you?
3. What have you been doing in your class in the past few weeks?
4. Do you do anything to help yourself understand the English lessons better (before/during/after the class)?
5. What do you do to improve your English in general (inside/outside the classroom)?
6. How do you think you get along with your teacher and the other students?
7. How does the atmosphere in the English class compare with that of other classes?
8. Which classroom activities do you most like or dislike? Why?
9. Which classroom activities do you consider to be the most or the least effect and useful? Why?
10. In your opinion, should the teacher speak English only while teaching?
11. Could you please tell me which aspects of learning English are easy or difficult for you? Why?
12. What do you do when you get stuck while responding in English?
13. When you make an error, would you prefer to be interrupted right away or would you rather finish your response?
14. Do you mind being corrected? Why?
15. What would you like to get out of the English course in the long run?
16. Do you have any other comments about your language learning experiences?

Appendix G

A Summary of Statements Reported by 44 Public University

Freshmen

University	Major of Study Area	Number of Statements
Suranaree	1. Information Technology	58
University of Technology	2. Engineering	85
Naresuan	1. Laws (International Program)	68
University	2. Allied Health Science	58
Mahidol	1. Arts	46
University	2. Social Science (International Program)	69
Silpakorn	1. Education	40
University	2. Science	49
		473

Appendix H

The Language Learning Strategy Coding/Categorization

Instructions:

- Please read the list of language learning strategies in (A) and the list of reported statements in (B) carefully.
- Choose the reported statements of (B) to match the language learning strategies of (A) by writing the number; 1-30 statements of (B), in the space given in front of each language learning strategy of (A).
- Please note that each reported statement of (B) can be used only ONCE, while some language learning strategies of (A) can be used MORE THAN ONCE.
- When completing the matching, please give some comments if you have had any difficulties or confusion matching between (A) and (B).

Example:

(A) List of language learning strategies

....1.....- Seeking out more supplementary resources to study before class

(A) List of language learning strategies

.....- Seeking out more supplementary resources to study before class

.....- Finding ways to help understand what is learnt in class

.....- Checking word meanings from dictionaries

.....- Making own lesson summary to prepare for the examinations

.....- Adapting oneself to meet and serve the teacher's criterion

.....- Relating new vocabulary learnt to things in the environment for better understanding

..... - Using L1 to help transmit L2 messages in class

..... - Conversing in English with foreigners outside the classroom

- - Taking short courses abroad to expand own general knowledge of English
- - Practicing general English with family members
- - Practicing English writing skills with friends outside the classroom
- - Practicing English reading skills by reading printed materials outside the classroom
- - Practicing general knowledge of English with a commercially packaged English programs
- - Practicing English listening skills with radio programs
- - Carrying dictionary around in case to help transmit messages
- - Preparing yourself physically before class
- - Being prepared for the risk of getting embarrassed or being incorrect in using English
- - Seeking out and using sources of information to make logical guess about what will be included in the examinations
-- Taking any job to practice using of English
-- Avoiding talking with other students while studying
-- Planning how to meet short and long term goals of English study
-- Highlighting the important things learnt in class
-- Attempting to revise today lessons
-- Joining leisure or social activities to practice and improve English
-- Using systems of symbols created for helping vocabulary memorization
-- Consciously giving response in class (e.g. concerning classmates' feelings)
-- Writing down a message to show more information about what one is trying to communicate
-- Translating unclear messages, found outside the classroom, into L1
-- Using own inner resources to reduce stress or anxiety

(B) List of reported statements

1. 'I've planned how much time I'll devote to English study in relation to my overall purpose and long time needs for studying English...'
2. 'I sometimes seek out additional information through articles/magazines by surfing Internet before doing assignments/homework...'

3. 'If I find any unknown/new/unclear words, I check with a dictionary...'
4. 'After class, I sometimes borrow friends' text books/lectures to recheck and add more input that I missed in class...'
5. 'In class, I always use colourful highlighters to mark what the teacher emphasizes...'
6. 'I spend my extra time/private time practicing conversations with my foreign friends outside the classroom ...'
7. 'Almost every year my parents send me to take summer courses abroad e.g. U.K, Australia, New Zealand...'
8. 'Every day three hours a day, I practice English with my father at home ...'
9. 'I keep corresponding with my family host and foreign friends I met in the U.S.A through writing emails, MSN, letters...'
10. 'During the weekends, I like to spend my days reading some English books, novels, or poems...'
11. 'I bought some commercially packaged programs to practice general English at home e.g. Follow Me, TOEFL etc...'
12. 'Every night, I listen to English radio run by Mass Communication Organization of Thailand (MCOT)...'
13. 'I use relaxation techniques like deep breathing or spiritual techniques such as meditation or prayer to help me cope with the stress of language learning...'
14. 'Generally, I bring a dictionary in case I need it to help me explain what I try to say in English...'
15. 'Before class, I prepare myself to be ready to acquire knowledge by going to bed early...'
16. 'I'm not afraid to make mistakes while responding in English and am ready to be corrected...'
17. 'I try to look for the teacher's manual in the library to guess what the teachers will pick for examinations...'
18. 'During semester breaks, I practice my English by working as a local guide in my hometown...'
19. 'Before examinations, I make my own lesson summary. This can help me a lot...'
20. 'Almost every time after class, I always ask myself what I have learnt today, then

I try to do a revision of the lessons ...’

21. ‘In this semester, I prefer to sit far from my friends because last semester they kept chatting with me in class...that made me lose concentration...’
22. ‘Although I personally don’t like to speak much in class, this semester I force myself to interact more because I know that the teacher likes us to do so...’
23. ‘In class, whenever I don’t understand what the teacher’s teaching, I don’t hesitate to ask questions...’
24. ‘I always compare vocabulary I learn in class by looking for examples surrounding me e.g. the word “slattern”, I look around to find among classmates who are slattern...that would make me memorize that word and classmates...’
25. ‘In my class, when I can’t find any English words to say, I sometimes use L1 words mixing in the conversation, then the teacher helps me by telling and changing them into English...’
26. ‘I seek practice occasions to practice English by watching television, going to parties, or social groups like church on Sunday...’
27. ‘I use my own images, pictures, drawings, or symbols to remember words...’
28. ‘I become aware of my speaking in class because every time I try to speak like native-speakers...the result is my friends laugh at me...and telling me that my accent is unauthentic...’
29. ‘I remember once in Singapore, I tried to ask the locals about directions to my hotel, they didn’t understand what I was saying, so I drew the name of the hotel and its location to help get my messages across...’
30. ‘Outside the classroom, if I don’t understand what I read in English, I translate word for word in Thai...’

Your comments:

.....

.....

.....

.....

.....

.....

☺ Thank you very much for your co-operation. ☺

Appendix I

Student Background Questionnaire

Please provide your personal information by putting a check mark (X) in the appropriate box or writing your response where necessary.

1. Date: _____
2. Your gender: male
 female
3. Your institution: _____
4. Major of study areas: _____
5. Your English GPA _____
6. Types of academic program:
 regular
 international
7. You place your English proficiency at the:
 advanced level
 intermediate level
 elementary level
8. You have studied English for:
 eight years, or less
 more than eight years

😊 Thank you very much for your co-operation. 😊

This part for the interviewer use only

- Fields of Study: science-oriented
 non science-oriented

The Questionnaire for Language Learning Strategy Study

Instructions: The Questionnaire for Language Learning Strategy Study is designed to gather information about how you, as a public university freshman, go about learning English. On the following pages, you will find statements related to learning English. Please read each statement carefully and choose the response 'Yes' or 'No' which applies to you. If the response you choose is 'Yes', please go on to the following statements and mark (X) the response which best describes how often you actually perform each activity when you are engaged in English. If the response you choose is 'No', please proceed to the next part as instructed. Please also note that there are no correct or incorrect answers for your responses. This usually takes about 20-30 minutes to complete. The criteria for the response are as follows:

Always or almost always means that you always or almost always perform the activity which is described in the statement.

Often means that you perform the activity which is described in the statement more than half the time.

Sometimes means that you perform the activity which is described in the statement less than half the time.

Never means that you never perform the activity which is described in the statement.

Example:

1. Do you prepare yourself for classroom lessons?

Yes No

If 'No', please proceed to 2. If 'Yes', how often do you...?

Language Learning Strategy	Always or almost always	Often	Sometimes	Never
1.A) check the outline of the course	X			

1. Do you prepare yourself for classroom lessons?

Yes No

If 'No', please proceed to 2. If 'Yes', how often do you...?

Language Learning Strategy	Always or almost always	Often	Sometimes	Never
A) study the course details before hand	-----	-----	-----	-----
B) prepare yourself physically	-----	-----	-----	-----
C) attempt to attend the class	-----	-----	-----	-----
D) do revision of the previous lessons	-----	-----	-----	-----
E) review your own notes/summary	-----	-----	-----	-----
F) attempt to revise today lessons	-----	-----	-----	-----
G) do homework or assignments	-----	-----	-----	-----
H) personally approach the teacher by asking the teacher for clarification of what is learned in class	-----	-----	-----	-----
I) practice what is learned in class with the teacher	-----	-----	-----	-----
J) discuss L2 learning problems with the teacher	-----	-----	-----	-----
<input type="checkbox"/> other (please specify)				

2. Do you try to find ways to help understand what is learnt in class?

Yes No

If 'No', please proceed to 3. If 'Yes', how often do you...?

Language Learning Strategy	Always or almost always	Often	Sometimes	Never
A) try to get a seat in the front row	-----	-----	-----	-----
B) avoid talking with other students while studying	-----	-----	-----	-----
C) take notes while studying	-----	-----	-----	-----
D) think to yourself along with the teacher's instruction	-----	-----	-----	-----
E) try to understand what is learnt by translating into Thai	-----	-----	-----	-----
F) consult a dictionary	-----	-----	-----	-----
G) ask the teacher for clarification	-----	-----	-----	-----
H) double check what is learned with friends	-----	-----	-----	-----
I) join a language study group	-----	-----	-----	-----
J) choose to sit near students proficient in English	-----	-----	-----	-----
K) listen to the teacher attentively	-----	-----	-----	-----
L) participate the classroom activities	-----	-----	-----	-----
<input type="checkbox"/> other (please specify)	-----	-----	-----	-----

3. Do you try to improve your language skills outside the classroom?

Yes No

If 'No', please proceed to 4. If 'Yes', how often do you...?

Language Learning Strategy	Always or almost always	Often	Sometimes	Never
A) read on-line materials (e.g. news, articles, tale stories, film scripts in English) to improve reading skill	-----	-----	-----	-----
B) read printed materials such as books, magazines, newspapers in English to sharpen reading	-----	-----	-----	-----
C) read any English-printed resources such as labels on drugs or consumer goods, computer instructions/ functions in English to enrich the vocabulary and expressions	-----	-----	-----	-----
D) contact with Thai or foreign friends through emails, instant messages (MSN) or SMS texts with computers or mobile phones to improve one's writing skill	-----	-----	-----	-----
E) watch English-speaking films to practice listening comprehension without looking at the Thai subtitles	-----	-----	-----	-----
F) watch television programs in English to help one familiar with the accents, tone of voice, and intonations	-----	-----	-----	-----
G) listen to English songs or cassette tapes of English conversations to practice listening skill	-----	-----	-----	-----
H) listen to radio programs in English to improve listening skill	-----	-----	-----	-----
I) imitate a native speaker from media such as films, songs, cassette tapes, TV shows to practice speaking skill	-----	-----	-----	-----
J) practice writing with English texts e.g. poems, greeting cards, or diaries	-----	-----	-----	-----
K) converse in English with teachers, peers, siblings, or foreigners	-----	-----	-----	-----
L) talk to oneself in English	-----	-----	-----	-----
<input type="checkbox"/> other (please specify)	-----	-----	-----	-----

4. Do you try to expand your general knowledge of English outside the classroom?

Yes No

If 'No', please stop here. If 'Yes', how often do you...?

Language Learning Strategy	Always or almost always	Often	Sometimes	Never
A) practice English with a commercially packaged English program (e.g. TOEFL, IELTS, Follow Me)	-----	-----	-----	-----
B) play games for vocabulary enrichment such as English crossword puzzles	-----	-----	-----	-----
C) seek out information in English through surfing the Internet	-----	-----	-----	-----
D) have extra tutorials (e.g. attending classes at a private school, having a personal tutor teaching English at home, taking short English courses abroad)	-----	-----	-----	-----
E) take any job to practice English (e.g. being a local/young guide in the hometowns, working part-time at a restaurant, where there are many foreign customers)	-----	-----	-----	-----
F) have your own language learning notebooks	-----	-----	-----	-----
G) translate English news, song lyrics, poems, etc. into Thai	-----	-----	-----	-----
H) use a dictionary for vocabulary enrichment	-----	-----	-----	-----
I) join leisure or social activities to practice and improve English (e.g. joining English Camps, entering singing contests, going to a church on Sunday, etc.)	-----	-----	-----	-----
J) practice general English with your family members	-----	-----	-----	-----
K) give tutorials to others like junior students, peers, or siblings	-----	-----	-----	-----
<input type="checkbox"/> other (please specify)	-----	-----	-----	-----

☺ Thank you very much for your co-operation. ☺

แบบสอบถาม

ส่วนที่ 1

ข้อมูลของผู้ตอบแบบสอบถามของนักศึกษามหาวิทยาลัยรัฐบาลชั้นปีที่ ๑ ในประเทศไทย ปี
การศึกษา ๒๕๔๕

โปรดทำเครื่องหมาย (X) หรือกรอกข้อความที่ตรงกับความเป็นจริงของนักศึกษา

1. เพศ ชาย หญิง

2. _____ สถาบันการศึกษา

3. คณะ _____ สาขา

4. โปรแกรมการศึกษา หลักสูตรปกติ หลักสูตรนานาชาติ

5. หากให้ประเมินระดับความรู้ความสามารถภาษาอังกฤษของตนเอง นักศึกษาคิดว่าอยู่ใน
ระดับ....

สูง กลาง เบื้องต้น

6. เกรดเฉลี่ย _____

7. เกรดวิชาภาษาอังกฤษ (ภาคการศึกษาที่ผ่านมา) _____

8. นักศึกษาเรียนภาษาอังกฤษมาแล้วเป็นเวลา...

น้อยกว่า 8 ปี มากกว่า 8 ปี

ส่วนนี้ สำหรับผู้วิจัย

แผนการเรียนของนักศึกษา

แผนวิทยาศาสตร์

แผนศิลปศาสตร์

ส่วนที่ 2

กลวิธีการเรียนภาษาอังกฤษของนักศึกษามหาวิทยาลัยรัฐบาลชั้นปีที่ ๑ ในประเทศไทย
ปีการศึกษา ๒๕๔๕

คำชี้แจง : แบบสอบถามนี้สร้างขึ้นเพื่อรวบรวมข้อมูลเกี่ยวกับกลวิธีการเรียนภาษาอังกฤษของนักศึกษาชั้นปีที่ ๑ ในประเทศไทย ปีการศึกษา ๒๕๔๕ โปรดอ่านและพิจารณาว่า นักศึกษาใช้กลวิธีการเรียนภาษาอังกฤษในแต่ละข้อต่อไปนี้หรือไม่ โดยเลือกคำตอบว่า “มี” หรือ “ไม่มี” ถ้าคำตอบว่า “ไม่มี” ให้นักศึกษาข้ามไปตอบส่วนต่อไปตามคำสั่ง ถ้าคำตอบว่า “มี” ให้นักศึกษาพิจารณาเลือกกลวิธีการเรียนภาษาอังกฤษเหล่านี้ให้สอดคล้องกับความเป็นจริงที่นักศึกษาใช้ โดยการทำเครื่องหมายกากบาท (X) ลงในช่องว่างที่เหมาะสมตามเกณฑ์ต่อไปนี้ คือ

- “สม่ำเสมอ” หมายถึง นักศึกษาใช้กลวิธีการเรียนนั้น ๆ <u>สม่ำเสมอ</u> มากกว่าสามในสี่ของเวลาทั้งหมดที่ใช้ <u>กลวิธีการเรียน</u>
- “บ่อย” หมายถึง นักศึกษาใช้กลวิธีการเรียนนั้น ๆ <u>บ่อย</u> มากกว่าครึ่งหนึ่งของเวลาทั้งหมดที่ใช้ <u>กลวิธีการเรียน</u>
- “บางครั้ง” หมายถึง นักศึกษาใช้กลวิธีการเรียนนั้น ๆ <u>เป็นครั้งคราว</u> น้อยกว่าครึ่งหนึ่งของเวลา <u>ทั้งหมดที่ใช้</u> <u>กลวิธีการเรียน</u>

- “ไม่เคย” หมายถึง นักศึกษาไม่เคยใช้ กลวิธีการเรียนนั้น ๆ เลย

ตัวอย่าง

(...) การเตรียมตัวก่อนเข้าห้องเรียน

- ถ้าไม่มี โปรดข้ามไปตอบส่วนที่ 2
- ถ้ามี นักศึกษาเตรียมตัวก่อนเข้าชั้นเรียนโดยวิธีใดต่อไปนี้ และบ่อยเพียงใด

กลวิธีการเรียนภาษาอังกฤษ	สม่ำเสมอ	บ่อย	บางครั้ง	ไม่เคย
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1. ศึกษารายละเอียดของบทเรียนล่วงหน้าก่อนเข้าชั้นเรียน	X			

ส่วนที่ 1 การเตรียมตัวสำหรับการเรียนในชั้นเรียน

1.1 ก่อนเข้าชั้นเรียนวิชาภาษาอังกฤษ นักศึกษามีการเตรียมตัวหรือไม่

- ถ้าไม่มี โปรดข้ามไปตอบส่วนที่ 1.2
- ถ้ามี นักศึกษาเตรียมตัวก่อนเข้าชั้นเรียนวิชาภาษาอังกฤษโดยวิธีใดต่อไปนี้ และบ่อยเพียงใด

กลวิธีการเรียนภาษาอังกฤษ (การเตรียมตัวก่อนเข้าชั้นเรียนวิชาภาษาอังกฤษ)	สม่ำเสมอ	บ่อย	บางครั้ง	ไม่เคย
1. การศึกษารายละเอียดของบทเรียนล่วงหน้าก่อนเข้าห้องเรียน				
2. การเตรียมความพร้อมทางร่างกาย เช่น เข้านอนแต่หัวค่ำ				
3. ความตั้งใจในการเข้าเรียน				
4. การทบทวนบทเรียนที่เรียนไปแล้ว				
5. อื่น ๆ (โปรดระบุ).....				

1.2 หลังจากเรียนวิชาภาษาอังกฤษ นักศึกษามีการทบทวนบทเรียนที่เรียนไปแล้วหรือไม่

- ถ้าไม่มี โปรดข้ามไปตอบส่วนที่ 2
- ถ้ามี นักศึกษาทบทวนบทเรียนวิชาภาษาอังกฤษโดยวิธีใดต่อไปนี้ และบ่อยเพียงใด

กลวิธีการเรียนภาษาอังกฤษ (การทบทวนบทเรียนวิชาภาษาอังกฤษ หลังจากที่ยังเรียนไปแล้ว)	สม่ำเสมอ	บ่อย	บางครั้ง	ไม่เคย
1. การทบทวนสิ่งที่จดบันทึกและข้อความสำคัญจากบทเรียนในห้องเรียน				
2. การทบทวนบทเรียนเป็นประจำทุกวัน				
3. การทำการบ้านและงานที่ได้รับมอบหมายจากอาจารย์ผู้สอน				
4. การขอพบเพื่อรับคำปรึกษาจากอาจารย์ผู้สอนในประเด็นที่ไม่เข้าใจ				
5. การฝึกฝนสิ่งที่เรียนกับอาจารย์ผู้สอนนอกห้องเรียน				

6. การแลกเปลี่ยนความคิดเห็นกับอาจารย์ผู้สอนเกี่ยวกับ ปัญหาการเรียนภาษาอังกฤษ				
7. อื่น ๆ (โปรด ระบุ).....				

ส่วนที่ 2 วิธีช่วยในการเข้าใจบทเรียนวิชาภาษาอังกฤษที่เรียนในชั้นเรียน

2.1 นักศึกษามีวิธีช่วยให้ตนเองเข้าใจบทเรียนวิชาภาษาอังกฤษในชั้นเรียน โดยไม่มีปฏิสัมพันธ์กับบุคคลอื่นในขณะที่เรียน หรือไม่

- ถ้าไม่มี โปรดเข้าไปตอบส่วนที่ 2.2
- ถ้ามี นักศึกษาใช้วิธีช่วยในการเข้าใจบทเรียนวิชาภาษาอังกฤษต่อไปนี้ บ่อยเพียงใด

กลวิธีการเรียนภาษาอังกฤษ (วิธีช่วยให้เข้าใจบทเรียนในชั้นเรียน โดยไม่มีปฏิสัมพันธ์กับ บุคคลอื่น)	สม่ำเสมอ	บ่อย	บางครั้ง	ไม่เคย
1. การเลือกนั่งแถวหน้า ๆ เพื่อจะได้ฟังอาจารย์ผู้สอนได้ ชัดเจน				
2. การหลีกเลี่ยงไม่คุยกับเพื่อน ๆ ในขณะที่ยังเรียน				
3. การจดบันทึกบทเรียน ในขณะที่ยังเรียน				
4. การคิดตามอาจารย์ผู้สอนในขณะที่ยังเรียน				
5. การทำความเข้าใจบทเรียนด้วยการแปลเป็นภาษาไทย				
6. การใช้พจนานุกรม				
7. อื่น ๆ (โปรด ระบุ).....				

2.2 นักศึกษามีวิธีช่วยให้ตนเองเข้าใจบทเรียนในชั้นเรียน โดยมีปฏิสัมพันธ์กับบุคคลอื่นในขณะที่เรียนหรือไม่

- ถ้าไม่มี โปรดเข้าไปตอบส่วนที่ 3
- ถ้ามี นักศึกษาใช้วิธีช่วยในการเข้าใจบทเรียนวิชาภาษาอังกฤษต่อไปนี้ บ่อยเพียงใด

กลวิธีการเรียนภาษาอังกฤษ (วิธีช่วยให้เข้าใจบทเรียนในชั้นเรียน โดยมีปฏิสัมพันธ์กับ บุคคลอื่น)	สม่ำเสมอ	บ่อย	บางครั้ง	ไม่เคย
1. การตรวจสอบความเข้าใจ โดยสอบถามเพื่อนร่วมชั้นเรียน				

2. การเข้าร่วมกลุ่มตัว				
3. การเลือกนั่งใกล้กับเพื่อนที่เก่งภาษาอังกฤษ				
4. การฟังอาจารย์ผู้สอนอย่างตั้งใจ				
5. การมีส่วนร่วมในกิจกรรมการเรียนการสอนในชั้นเรียน				
6. อื่น ๆ (โปรดระบุ).....				

ส่วนที่ 3 การพัฒนาทักษะ ทางภาษาอังกฤษ

นักศึกษามีการพัฒนาทักษะด้านต่าง ๆ ทางภาษาอังกฤษหรือไม่

- ถ้าไม่มี โปรดข้ามไปตอบส่วนที่ 4
- ถ้ามี นักศึกษาใช้วิธีพัฒนาทักษะทางภาษาอังกฤษต่อไปนี้ บ่อยเพียงใด

กลวิธีการเรียนภาษาอังกฤษ (การพัฒนาทักษะทางภาษาอังกฤษ)	สม่ำเสมอ	บ่อย	บางครั้ง	ไม่เคย
1. การพัฒนาทักษะการอ่าน ด้วยการอ่านเอกสารภาษาอังกฤษออนไลน์ (เช่น ข่าว บทความ เรื่องเล่า บทภาพยนตร์ เป็นต้น)				
2. การพัฒนาทักษะการอ่าน ด้วยการอ่านสิ่งตีพิมพ์ภาษาอังกฤษ เช่น หนังสือ วารสาร หนังสือพิมพ์ เป็นต้น				
3. การเพิ่มพูนคำศัพท์และสำนวน ด้วยการอ่านข้อความภาษาอังกฤษต่าง ๆ เช่น ข้อความบนฉลากยา ฉลากสินค้า เป็นต้น				
4. การพัฒนาทักษะการเขียน ด้วยการติดต่อกับเพื่อนคนไทย และชาวต่างชาติ ผ่านทางจดหมายอิเล็กทรอนิกส์ (Email) การสนทนาผ่านระบบออนไลน์ (MSN) หรือส่งข้อความผ่านระบบบริการรับส่งข้อความผ่านโทรศัพท์มือถือ (SMS) เป็นต้น				
5. การฝึกฝนทักษะการฟัง ด้วยการดูภาพยนตร์พากย์ภาษาอังกฤษ โดยไม่อ่านคำแปลภาษาไทย				
6. การฝึกความคุ้นเคยกับการออกเสียง และสำเนียงภาษาอังกฤษ ด้วยการดูรายการโทรทัศน์ภาคภาษาอังกฤษ				
7. การฝึกฝนทักษะการฟัง ด้วยการฟังเพลงหรือเทปบันทึกเสียง บทสนทนาภาษาอังกฤษ				
8. การฝึกฝนทักษะการฟัง โดยฟังรายการวิทยุภาค				

ภาษาอังกฤษ				
9. การฝึกฝนทักษะการพูด โดยเลียนแบบการออกเสียงตามเจ้าของภาษาจากสื่อต่าง ๆ เช่น ภาพยนตร์ เพลง เทป บันทึกเสียง รายการโทรทัศน์ เป็นต้น				
10. การฝึกฝนทักษะการเขียนจากข้อความภาษาอังกฤษต่าง ๆ เช่น เขียนโคลงกลอน บัตรอวยพร บันทึกประจำวัน (Diary)				
11. การฝึกสนทนาเป็นภาษาอังกฤษกับอาจารย์ผู้สอน เพื่อน พี่น้อง หรือ ชาวต่างชาติ				
12. การพัฒนาทักษะการพูดภาษาอังกฤษ ด้วยการพูดกับตัวเอง				
13. การเตรียมพร้อมที่จะเริ่มสนทนากับชาวต่างชาติ หรือ ถูกแก้ไขเมื่อพูดผิด				
14. อื่น ๆ (โปรดระบุ).....				

ส่วนที่ 4 การเพิ่มพูนความรู้ทั่วไปทางภาษาอังกฤษนอกห้องเรียน

- ถ้าไม่มี ไม่ต้องตอบแบบสอบถามในรายละเอียดของข้อนี้
- ถ้ามี นักศึกษาใช้วิธีเพิ่มพูนทักษะทางภาษาอังกฤษต่อไปนี้ บ่อยเพียงใด

กลวิธีการเรียนภาษาอังกฤษ (การเพิ่มพูนความรู้ทั่วไปทางภาษาอังกฤษนอกห้องเรียน)	สม่ำเสมอ	บ่อย	บางครั้ง	ไม่เคย
1. การฝึกฝนภาษาอังกฤษ โดยใช้ชุดฝึกที่วางจำหน่ายทั่วไป (เช่น TOEFL, IELTS, Follow Me)				
2. การเล่นเกมที่เพิ่มพูนคำศัพท์ เช่น เกมสั้อักษรปริศนา ภาษาอังกฤษ (Crosswords)				
3. การสืบค้นข้อมูลภาษาอังกฤษผ่านทางอินเทอร์เน็ต				
4. การเรียนพิเศษ (เช่น เรียนพิเศษในโรงเรียนกวดวิชา จ้างครูมาสอนพิเศษที่บ้าน ไปเรียนหลักสูตรระยะสั้น ณ ต่างประเทศ)				
5. การทำงานนอกเวลาที่มีโอกาสฝึกฝนการใช้ภาษาอังกฤษ (เช่น เป็นซุ้มัคคุเทศก์ในท้องถิ่น ทำงานในร้านอาหารที่มีชาวต่างชาติมารับบริการ เป็นต้น)				
6. การใช้สมุดบันทึกส่วนตัวในการเรียนภาษาอังกฤษ				
7. การแปลข่าวหนังสือพิมพ์ เนื้อเพลง โคลงกลอน และอื่น ๆ				

เป็นภาษาไทย				
8. การใช้พจนานุกรม เพื่อช่วยเพิ่มความรู้ด้านคำศัพท์				
9. การร่วมกิจกรรมยามว่าง หรือกิจกรรมทางสังคม เช่น ค่ายภาษาอังกฤษ การประกวดร้องเพลงภาษาอังกฤษ การไปโบสถ์ วันอาทิตย์ ฯลฯ				
10. การฝึกฝนภาษาอังกฤษกับสมาชิกในครอบครัว				
11. การติวภาษาอังกฤษให้คนอื่น เช่น นักศึกษารุ่นน้อง เพื่อน หรือ พี่น้อง เป็นต้น				
12. อื่น ๆ (โปรดระบุ).....				

ขอบคุณที่ให้ความร่วมมือ

CURRICULUM VITAE

Nisakorn Prakongchati is a lecturer at the Faculty of Liberal Arts, Mahidol University, Thailand. She received a B.A. from Silpakorn University, and an M.A. in Applied Linguistics (Mahidol University). She undertook the co-supervision programme between the School of English, Institute of Social Technology, Suranaree University of Technology, Thailand and the School of Education, the University of Leeds, the UK. for a Degree of Doctor of Philosophy in English Language Studies. She was a holder of the Thai government scholarship. Her interests include language learning strategies, learner autonomy, learners' individual differences, and classroom-based research.