ปุณยภา แสงศรี: ผลกระทบของรูปแบบการช่วยฟังและระดับความสามารถทางภาษาอังกฤษต่อความสามารถในการฟังและกลวิธีการฟังของนักศึกษาไทยชั้นปีที่ 1. (THE EFFECTS OF LISTENING SUPPORTS AND LEVELS OF ENGLISH ABILITY ON THAI FIRST YEAR UNIVERSITY STUDENTS' LISTENING PERFORMANCE AND LISTENING STRATEGIES)
อ.ที่ปรึกษาวิทยานิพนธ์หลัก: ศ.ดร. กาญจนา ปราบพาล, 190 หน้า.

งานวิจัยนี้ศึกษา1)ผลกระทบของรูปแบบการฟังต่อความสามารถในการฟัง (Listening supports) 2) ผลกระทบของระดับความสามารถทางภาษาอังกฤษต่อความสามารถในการฟัง และ 3) กลวิธีการฟังของนักศึกษาไทยชั้นปีที่ 1 กลุ่มประชากรคือนักศึกษาไทยชั้นปีที่ 1 มหาวิทยาลัยเทคโนโลยีพระจอมเกล้าธนบุรีที่กำลังศึกษาใน 3 คณะ ได้แก่คณะวิทยาศาสตร์ คณะวิศวกรรมศาสตร์ และคณะครุศาสตร์อุตสาหกรรมและเทคโนโลยี กลุ่มตัวอย่างประกอบด้วยนักศึกษา 180 คน โดยแบ่งเป็นกลุ่มนักศึกษาที่มีระดับความสามารถทางภาษาอังกฤษสูง และ ต่ำตามคะแนนจากวิชาภาษาอังกฤษในภาคการศึกษาที่ 1/2553

เครื่องมือวิจัยประกอบด้วย แบบทดสอบการฟังภาษาอังกฤษ แบบสอบถามกลวิธีการฟังและการสัมภาษณ์หลังการสอบ แบบทดสอบการฟังภาษาอังกฤษสร้างขึ้นเพื่อศึกษาผลกระทบของรูปแบบการฟังต่อความสามารถในการฟัง สำหรับแบบสอบถามกลวิธีการฟัง สร้างขึ้นเพื่อสำรวจกลวิธีการฟังของนักศึกษาในการทำแบบทดสอบการฟัง และการสัมภาษณ์หลังการสอบที่สร้างขึ้นเพื่อเก็บข้อมูลเชิงลึกเกี่ยวกับกลวิธีการฟังที่กลุ่มตัวอย่างใช้ในการทำแบบทดสอบการฟังภาษาอังกฤษ ผู้วิจัยใช้การวิเคราะห์ความแปรปรวนแบบสองทาง (Two-way ANOVA) และใช้ partial Eta squared ในการวัดขนาดของผลกระทบทั้งสองตัวแปร และสำหรับข้อมูลเชิงคุณภาพใช้การวิเคราะห์เนื้อหา

ผลการวิจัยพบว่า 1)รูปแบบการช่วยฟังมีผลกระทบต่อความสามารถทางการฟังอย่างมีนัยสำคัญทางสถิติที่ระดับ .05 อย่างไรก็ตามผลกระทบไม่สูงมากนัก 2)ระดับความสามารถทางภาษาอังกฤษมีผลกระทบต่อความสามารถทางการฟังอย่างมีนัยสำคัญทางสถิติที่ระดับ .05 3)รูปแบการช่วยฟังและระดับความสามารถทางภาษาอังกฤษไม่มีผลกระทบร่วม (Interaction effect) ต่อความสามารถทางการฟังและ 4) นักศึกษาใช้กลวิธีการฟังอย่างหลากหลายในการทำแบบทดสอบการฟัง และกลวิธีการฟังที่นักศึกษาใช้ที่มีค่าเฉลี่ยสูงสุดสามอันดับคือ ความตั้งใจที่กำหนดไว้ก่อน (directed attention) ความตั้งใจแบบเจาะจง (selective attention) และ การคาดคะเน (prediction) ตามลำดับ และ กลวิธีการฟังที่นักศึกษาใช้ที่มีค่าเฉลี่ยต่ำสุดสามอันดับคือ การพูดซ้ำ (repetition) การจดบันทึกย่อ (note-taking) และ การพูดเชิงบวก (positive talk)

นอกจากนั้นการวิจัยพบว่า นักศึกษาในกลุ่มระดับความสามารถสูงและนักศึกษาที่มีความสามารถด้านภาษาอังกฤษในระดับต่ำใช้กลวิธีในรูปแบบเดียวกัน แต่นักศึกษาในกลุ่มระดับความสามารถสูง มีค่าเฉลี่ยของการใช้กลวิธีการฟังสูงกว่า ผลการวิจัยนี้ให้ความกระจ่างมากขึ้นในเรื่องที่เกี่ยวกับผลกระทบต่อความสามารถด้านการฟังของนักศึกษาไทย โดยเฉพาะของนักศึกษาชั้นปีที่ 1 นอกจากนี้ยังให้ข้อมูลแก่ผู้สอนภาษาอังกฤษในเรื่องกลวิธีการฟัง เพื่อให้ผู้สอนให้ความสำคัญกับการสอนกลวิธีการฟังในห้องเรียนมากยิ่งขึ้น

สาขาวิชา .....ภาษาอังกฤษเป็นภาษานานาชาติ..... ลายมือชื่อ นิสิต.....
ปีการศึกษา.....2554..... ลายมือชื่อ อ.ที่ปรึกษาวิทยานิพนธ์หลัก.....

5087860120: MAJOR ENGLISH AS INTERNATIONAL LANGUAGE
KEYWORDS: LISTENING SUPPORTS/LEVELS OF ENGLISH ABILITY /LISTENING PERFORMANCE/LISTENING STRATEGIES

PUNYAPA SAENGSRI: THE EFFECTS OF LISTENING SUPPORTS AND LEVELS OF ENGLISH ABILITY ON THAI FIRST YEAR UNIVERSITY STUDENTS' LISTENING PERFORMANCE AND LISTENING STRATEGIES
ADVISOR: PROF. KANCHANA PRAPPHAL, Ph.D., 190 pp.

The objectives of this study were 1) to examine the effect of different listening supports on the students' listening performance, 2) to investigate the effect of different levels of English ability on the students' listening performance, 3) to investigate the interaction effect between listening supports and English ability and 4) to examine the listening strategies used by the students in performing listening test. The population was first-year undergraduate students from three faculties at King Mongkut's University of Technology Thonburi and the samples were 180 students. They were grouped and labeled as high ability students and low ability students based on the grades they obtained from their previous English Fundamental Course.

The research instruments included an English Listening Proficiency Test, a questionnaire, and a semi-structured retrospective interview. The English Listening Proficiency Test was developed to examine the effect of listening supports on the listening performance. The questionnaire, along with the semi-structured retrospective interview, was designed to obtain in depth data about the listening strategies that high and low ability students used when taking the listening test. Quantitative data were analyzed through descriptive statistics including mean, standard deviation statistics, and Two-way ANOVA as well as effect size. Content analyses were employed to analyze qualitative data.

The findings revealed that 1) listening supports significantly affected the listening performance of Thai first year students with the repeated input being the most effective listening support. However, the statistical analysis indicated that the effect size of the listening support was small. In other words, in this study listening performance may not be influenced by the selected listening supports, 2) the levels of English ability significantly affected the listening performance and its effect size was small, 3) the statistical analysis indicated that even though both main effects were significant, the interaction effect between English ability levels and listening supports was not significant, and 4) the students used a variety of listening strategies when taking a listening test with the three most frequently used strategies being directed attention, selective attention, and prediction, respectively and the least frequently used listening strategies being repetition, note-taking and positive talk, respectively. Moreover, it was found that high ability students and low ability students used listening strategies in the same pattern, but high ability students used them more frequently.

The findings provided more insights into the effects on the listening performance of Thai first-year students. Moreover, they also gave more information to enable teachers to see the importance of listening strategies.

Field of Study: English as an International Language Student's Signature:…….

Academic Year: 2011 Advisor's Signature:……

CHAPTER 1

INTRODUCTION

1.1 Background of the Study

There is no doubt that listening comprehension is essential for language learning. As suggested by Vandergrift (2007), "Listening comprehension lies at the heart of language learning, but it is the least understood and least researched skill" *(*Vandergrift, 2007:191). As to why it is the least studied, Buck (2001) claimed that it may be due to the incredible complexity of the listening process, which may be why listening is the least researched. Vandergrift (2007:191) also stated that "listening is the least researched skill among the four language skills because of its "implicit nature, the ephemeral nature of acoustic input and the difficulty in accessing the processes." However, the attention on listening has increased in the past decades with the emphasis on various aspects of listening skills such as listening comprehension process, factors affecting listening comprehension, and listening strategies (Vandergrift, 1997, 2002; Goh, 1998, 2002).

According to Buck (2001), listeners usually rely on two sources of information in processing listening input. First, they have to rely on their linguistic knowledge, which includes knowledge of phonology, lexicon, semantics, syntax, pragmatics and so forth. The second type of knowledge is schematic knowledge, i.e. "the knowledge about the topic, about the context, and general knowledge about the world and how it works" (2001:2). This knowledge goes through different processes: a bottom-up process, a top-down process, or an interactive process in the listeners' heads in order to comprehend the listening input. However, completing this process may be interrupted and comprehension might not occur. The factors affecting listening comprehension, therefore, have become the interest of many researchers.

Brindley and Slatyer (2002) identified three factors that affect the listening ability of students:

- The nature of the input: speech rate, length of the passage, syntactic complexity, vocabulary, discourse structure, noise level, accent, register, propositional density, amount of redundancy, etc.;
- The nature of assessment tasks: the amount of context provided, clarity of instructions, response format, availability of question preview, etc.; and
- The individual listener's factors: memory, interest, background knowledge, motivation, etc.

These factors influence the listening comprehension of the listeners. In a testing situation, these factors influence the test performance of students. Therefore, several studies have focused on the factors affecting listening comprehension or performance of listeners and one of these factors is defined as listening supports. In other words, providing listening supports is a way to investigate how the performance of students may be affected by different factors. Table 1.1 shows previous studies of the effects of listening supports and the findings, as they relate to this study. The first three studies focused only on one factor, while the last two focused on the relative effects of different listening supports.

Table 1.1: Previous Studies of the Effects of Listening Supports and the Findings

Researchers	**Listening supports**	**Findings**
Sherman (1997)	Question preview	The results from the questionnaire indicated that the subjects had strong affective attachment to previewed questions.

Table 1.1 (continued): Previous Studies of the Effects of Listening Supports and the Findings

Teng (1999)	Question preview	The results indicated that providing questions in advance facilitated the listening performance of the subjects.
Elkhafaifi (2005)	Vocabulary preview and question preview	The findings indicated that the subjects from the question preview group scored significantly higher.
Chang and Read (2006)	Previewing test questions, repetition of input, providing background knowledge, and vocabulary instruction	The results showed that the most effective type of listening support was to provide the subjects with the information about the topic, followed by repetition of the listening input.

As seen from Table 1.1, even though the factors that affect listening comprehension or performance of students have been explored and well-defined, the studies on the relative effect of listening supports are still limited, especially in Thai context. Therefore, this study has examined the aspects of factors affecting listening performance of students, particularly Thai first year, non-English major students. Therefore, the purpose of this present study is to investigate the main and interaction effects of listening supports on the listening test performance of Thai undergraduate students across different levels of English ability as well as to examine the use of listening strategies of these undergraduate students across different levels of English ability. This study may reveal information whether listening supports affect the listening performance of the students and if so to

what extent the supports have an effect on the listening performance of the students.

Another aspect of listening skill that is investigated in this study is listening strategies. Even though language learning strategies have been around for several decades and has been proven to be useful for language learners, listening strategies are still not at their peak. O'Malley and Chamot together with Kupper (1989) observed the use of listening strategies at different phases of listening comprehension between effective listeners and ineffective listeners. The study reveals that effective listeners tended to use both top-down and bottom-up strategies while ineffective listeners seemed to employ only bottom-up strategies. Vandergrift (1997) also studied listening strategies and his study showed that cognitive strategies were the most frequently used among L2 French students. And among the listening cognitive strategies, Teng's (1998)'s study indicated that 'translation' was the most used strategy among his subjects. As evidence of the growing attention to listening strategies in Thailand, a study by Suwaphap in 1998 showed that that the listening ability of Thai students could be enhanced by the use of cognitive and metacognitive strategies.

Furthermore, in relation to proficiency or ability levels, Goh's study in 1998 indicated that high-ability listeners used more strategies and tactics than the low-ability ones. Also in 2002, Goh investigated the use of listening strategies among Taiwanese EFL students; the finding indicated that the participants with the higher level of ability used both cognitive and metacognitive strategies more effectively.

In Thailand, Piamsai (2005) studied the use of cognitive and metacognitive strategies across two levels of the ability variable: high-listening ability and low-listening ability among students at Chulalongkorn University. The study revealed that the high-listening ability group employed more cognitive and metacognitive strategies than their low-listening ability counterparts. Also, this study showed

that the high-listening ability group emphasized more placed more emphasis on the appropriate use of strategies than their low-listening-ability counterparts. Table 1.2 shows previous studies on listening strategies.

Table 1.2: Previous Studies of Listening Strategies

Researchers	**Findings**
O'Malley et al. (1989)	The result indicated that effective and ineffective listeners employed the studied strategies differently at each stage of cognitive processing.
Vandergrift (1997)	The results showed that the most frequently used strategies among high proficiency learners were cognitive strategies, followed by metacognitive and socio-affective strategies.
Goh (1998)	The results indicated that high-ability listeners used more strategies and tactics than the low-ability ones.
Teng (1998)	The findings showed that compensation strategies were the most frequently used and translation strategy was the most used strategy.
Goh (2002)	The results indicated that the participants with the higher level of ability used both cognitive and metacognitive strategies more effectively.
Suwaphap (1998)	The result from the study indicated that the listening ability of Thai students could be enhanced by the use of cognitive and metacognitive strategies.
Piamsai (2005)	The result indicated that the high-listening ability group employed more cognitive and metacognitive strategies than their low-listening ability counterparts.

Even though listening strategies have been explored for some time, in the case of Thailand, investigation on this aspect of listening is still needed in order to contribute to the body of knowledge on listening strategies and sub-strategies among Thai students, especially in testing situations in order to give insightful information on listening strategies which exist among students of different English abilities.

In brief, this study aimed to investigate the effects of listening supports on listening performance of Thai university students as well as to examine the use of listening strategies and sub-strategies of the students in a listening testing situation.

1.2 Objectives of the Study

1. To examine the effect of different listening supports on students' listening performance.
2. To investigate the effect of different levels of English ability on students' listening performance.
3. To investigate the interaction effect between listening supports and English ability.
4. To examine the listening strategies used by students in performing a listening test.

1.3 Research Questions

This study is aimed to find answers to the following questions:

1. Do different types of listening supports have a significant effect on students' listening performance? If yes, to what extent is the effect size?
2. Do different levels of English ability have an effect on students' listening performance? If yes, what is the effect size?
3. Is there an interaction effect between listening supports and English ability?
4. What listening strategies do the students use when they do a listening test?

1.4 Definition of Terms

The English Listening Proficiency Test (ELP-Test) used in this study is a proficiency test to assess the general listening ability of the participants. The test focused on two types of comprehension based on the listening sub-skills framework of Weir (1993) as follows:

1. Direct meaning comprehension refers to the comprehension of surface information and facts that are explicitly stated in the input text.

- Listening for gist: ability to understand the listening message.
- Listening for main ideas: ability to distinguish main ideas or important information from supporting details or examples.
- Listening for specific information: This construct measures test takers' ability to listen for specific information, including the recall of important details.
- Determining speakers' attitudes and intentions: ability to determine the attitudes and intentions of speakers from the input.

2. Inferred meaning comprehension: ability to implicitly understand and draw inferences from input texts, i.e. the information is not clearly stated and the answer, therefore, requires more careful listening.

University Students refers to first year students who are studying at a Bachelor's degree level at King Mongkut's University of Technology Thonburi in the academic year 2010. They come from three faculties, namely the Faculty of Engineering, the Faculty of Science, and the Faculty of Industrial Education and Technology.

High Ability Students (HAS) were 15 first-year students for the pilot study and 90 for the main study from King Mongkut's University of Technology Thonburi. They obtained grade A or B+ from their previous English fundamental course (LNG 101 General English).

Low Ability Students (LAS) were 15 first-year students for the pilot study and 90 for the main study from King Mongkut's University of Technology Thonburi. They obtained grade C+ or below from their previous English fundamental course (LNG 101 General English).

Listening Supports in this study were three forms of listening supports in the listening test which was administered to help test takers perform the listening test. The three types of supports which will be explored in this study are: (a) Question Preview, (b) Vocabulary Preview, and (c) Repeated Input**.**

a) "Question Preview (QP)" refers to the opportunity for test takers to be prepared about the topic of the listening test in advance, by previewing the questions in advance. The students in this group could read about the topic they would listen to immediately before the listening test.

b) "Vocabulary Preview (VP)" refers to the provision of the key vocabulary in the listening text for the test takers to learn before taking the ELP-Test.

c) "Repeated Input (RI)" refers to the opportunity to listen to listening text that the test takers listened to in each listening test situation. In this study, the listening text was play twice.

Unlike previous studies on listening supports, this study was conducted strictly in a testing situation. That is, the listening supports were provided in the form of paper-based materials. There was no explanation or discussion of the 'question preview condition' and the 'vocabulary preview condition'.

Listening Performance was based on the scores of the test takers obtained from taking the ELP-Test. The test was developed to assess general listening ability of Thai first year university students.

Listening Strategies and Sub-strategies employed in this study refer to the strategies and sub-strategies that the test takers used to solve the ELP-Test. This study focused on the following cognitive, metacognitive, and affective listening strategies:

a. "Cognitive strategies" refers to the actual action process that the listeners followed in order to complete the listening test.
b. "Metacognitive strategies" includes the strategies that the test takers used to organize, plan, monitor and evaluate their listening performance.
c. "Affective strategies" refers to the strategies that test takers used to deal with their affective factors.

It should be noted that the listening strategies and sub-strategies in the questionnaire to tap out the listening strategies of the students were designed based on the descriptions of listening strategies suggested by Vandergrift (1997) and Goh (2002). The listening strategies were specifically selected for the listening test situation set in this study.

1.5 Scope of the Study

1. The English Listening Proficiency Test only covered two listening constructs, namely "Direct meaning comprehension", including listening for gist, listening for main idea(s) or important information and listening for specific information, and "Inferred meaning comprehension".
2. The participants were first year students at King Mongkut's University of Technology Thonburi and the levels of English ability were categorized by the grades from their previous English fundamental course.
3. The listening supports were limited to (a) Question Preview, ((b) Vocabulary Preview, and (c) Repeated Input.
4. The English ability variables comprised two levels: high-ability group and low-ability group. The students in the high-ability group were those who obtained grades A or B+ from their previous English fundamental course

(LNG 101). The students in the low ability group were those who obtained grades C+ or below from their previous English fundamental course (LNG 101).

5. Moreover, because of the nature of the test, listening strategies only covered listening strategies and sub-strategies that were used in the test taking situation, not listening strategies in other situations such as classroom situation. Therefore, the selected listening strategies included were as follows:
   - Listening strategies and sub-strategies used before the listening test: cognitive and metacognitive listening strategies
   - Listening strategies and sub-strategies used during the listening test: cognitive, metacognitive, and affective listening strategies
   - Listening strategies and sub-strategies used after the listening test: metacognitive, and affective listening strategies

Due to the scope mentioned above, the results found in this study cannot be generalized to other contexts.

1.6 Assumptions of the Study

The assumptions to conduct this study were:

The study would give some insightful information on the use of listening supports to minimize the effects of factors affecting the listening test performance, especially in the formative assessment aspect. Moreover, it was assumed that useful information of listening strategies and students' cognitive process would be obtained through a retrospective interview, which was beneficial for test developers and teachers.

1.7 Significance of the Study

The results from this present study could contribute to language assessment in the following aspects:

a) For practical significance:

It could provide some evidence on the effects of providing supports to test takers and this evidence would be useful for future test developments. Also, the results of listening strategies might be useful for students and teachers. Students could consider what strategies would be effective for them and the teacher could use the results concerning strategies, if it could be applicable, as information for their instructional purposes. In other words, the results might give some insights about process assessment, particularly in classroom assessment.

b) For theoretical significance:

- This research study could provide information for educational practitioners to develop more reliable and valid constructs in listening tests for test takers.
- The findings obtained might help in bridging the gap between the theory and practice in the field of language assessment, particularly in listening skills.

1.8 Overview

Chapter 1 presents an overall background and rationale on which this study is based. Then, the objectives and research questions are stated. In addition, definitions of terms, scope of the studies, assumptions, and the significance of the study are described.

Chapter 2 reviews literature relevant to issues and research approaches this study is concerned with. The related literature includes listening comprehension process, listening assessment, listening supports, factors affecting listening performance, listening strategies.

Chapter 3 focuses on the research methodology of this study, covering the research design, stages of the research, samples, research instruments, data collection, and data analysis.

Chapter 4 presents the results of the study. With the data quantitatively and qualitatively analyzed, the four research questions in this study are answered. The first research question is answered by dealing with the descriptive statistics of the effects of listening supports on the two groups of students' listening performances and their effective sizes. The second research question is answered with the descriptive statistics of the effects of English ability on the two groups of students' listening performances and its effective size. The third research question is answered with two-way ANOVA about the interaction effect of the two variables. The fourth question is answered through the descriptive statistics and the content analyses of the students' listening strategies used.

Chapter 5 summarizes and discusses the findings, describes some implications for English assessment particularly for listening skills as well as offers some recommendations for further research.

CHAPTER 2
LITERATURE REVIEW

This chapter discusses the theory and research into the area that forms the underpinning for this study. The first section provides an overview of listening comprehension, its processes and the models to describe these processes. The second section deals with factors that have been identified to affect listening performance. The third section concerns listening assessment with related issues, including listening constructs, how to design a listening test, and the validation process of the listening test. The chapter concludes with the review of listening strategies, their effect and the relationship between listening strategies and the level of language proficiency.

2.1 Listening Comprehension and Listening Process

There are many different approaches to describe the notion of listening comprehension. However, most researchers seem to agree that all listening comprehension involves the use of both linguistic and non-linguistic knowledge. Linguistic knowledge includes phonology, lexis, syntax, semantics and discourse structure as well as the ability to interact with the input in real time (Buck, 2001:3). Non-linguistic knowledge is concerned with such aspects as contextual knowledge (Buck, 2001:2;). This knowledge is processed in the listeners' head to produce a meaningful understanding of the listening input that they have heard. Scholars in the field, such as Byrnes (1984), Anderson (1985), Buck (19911), and Rost (2002) to name a few, have all defined and contributed to the research on listening comprehension.

Byrnes (1984:318) suggests that listening comprehension is a "highly complex problem-solving activity" where information is used to solve problems. From a cognitive perspective, Anderson (1985) viewed listening as a mental process. He differentiated listening comprehension into three processes:

perceptual processing, parsing and utilization. In the first phase, perception, listeners' attention is focused on the sounds and they try to decode the acoustic message. In the next step, parsing, words are transformed into a meaningful mental representation. Finally, listeners utilize the input which "consists of relating a mental representation of the message to the existing knowledge" (O'Malley et al., 1989, p. 421). Anderson also indicates that these three phases of listening comprehension is recursive and overlapping rather than occurring in distinct stages. In addition, O'Malley and Chamot (1990:133) define listening comprehension as an "active and conscious process in which the listener constructs meaning by using cues from contextual information and from existing knowledge…".

According to Buck (1991:67), listening comprehension goes far beyond the mere application of language knowledge in order to interpret a text. It is a process whereby listeners extract meaning based on their own knowledge and experience. He believes that since comprehension takes place in the listener's mind, the setting or context for 'interpretation is the cognitive environment of the listener'. Because of the lack of visible signs of comprehension, task performance has to form the basis of inferences about the extent of understanding (Buck, 2001:99). Buck's (2001:31) definition of listening comprehension is that it is 'an active process of constructing meaning … by applying knowledge to the incoming sound'. Vogely (1995:41) defined listening comprehension as a "process of constructing meaningful information based on a multidimensional relationship between the learners and all of the internal and external influences, and intrinsic and extrinsic elements involved in that learner's reality."

Like Buck, Rost (2002:59) believes that listening comprehension is a process whereby language is linked to previously stored notions and associations in real life. In other words, it is the understanding of what the language is referring to, based on one's past experience or knowledge. Rost elaborates on this point by saying that the merging of new information received by the listener with what he

or she already knows is central to the comprehension process. One needs to retrieve stored information from one's memory in order to understand and process the new data. When this background knowledge is activated, the listener undergoes an affective response which influences his/her reaction to what is being said (Rost, 2002:63).

In addition, Vandergrift (1997:168) suggested listening is "a complex and active process in which listeners must discriminate between sounds, understand vocabulary and grammatical structures, interpret stress and intonation, retain the data collected in the above processes, and interpret it within the immediate as well as the larger sociocultural context of the utterance." Schwartz (1998) defined listening comprehension as the time when listeners actively operate the received aural input and interpret the message by using background and linguistic knowledge. As can be seen, defining listening comprehension is not easy, but all scholars seem to share the notion that listening comprehension is a complex, active, and multidimensional process, requires various types of knowledge i.e. linguistics and non-linguistics as well as the interpretation of the input in a particular context.

2.2 Listening Comprehension Processes

As mentioned in the previous section, listening comprehension is a complex process, but still there are theories that attempt to explain this process.

Rubin (1994:199) explained that the "listening process refers to how listeners interpret input in terms of what they know, or identify what they don't know." Anderson (1985) classifies listening processes into three processes, namely perception, parsing, and utilization. Each process represents different phases of the listening processes. Perception, being the lowest level, is when the listeners focus on the acoustic sounds of the language. During this phase in listening, an individual attends closely to input and the sounds are retained in echoic memory. At the parsing phase, words are transformed into a mental representation of the

combined meaning of these words. During the third phase, the mental representation above is related to existing knowledge and stored in long-term memory as propositions or schemata. At this stage, the listener may draw different types of inferences to complete the interpretation and make it more personally meaningful, or use the mental representation to respond to the speaker. These three phases of listening processes are interrelated and each represents different levels of processing, with perception being the lowest.

All three phases are interrelated and recursive and can happen concurrently during a single listening event. They are by necessity partially ordered in time; however, they also partly overlap. Listeners can be making inferences from the first part of a sentence while they already perceive a later part.

Brown (1995) identified listening comprehension into four stages. The first stage is to identify the information. The new information is integrated with what the listeners have already stored in their memory. Next, the new information is filed and finally used when it is appropriate. Brown's model seems to point to a sequence which is followed in order to understand spoken text.

Additionally, the listening process can also be viewed from the listeners' aspect, that is, how learners process the input. Three accepted models of listening comprehension processes are the bottom-up model, the top-down model, and recently the interactive model.

2.2.1 The Bottom-up and Top-down Models

Based on the studies of researchers in the 1940s and 1950s, the bottom-up model refers to the process where listeners rely more on their linguistic knowledge to comprehend the input. This model can be viewed as a context-independent model i.e. the listeners make use of their knowledge of words, syntax, and grammar to work on form (Rubin, 1994). However, bottom-up processing has its weak points. In understanding a listening text, relying solely on one's

linguistic knowledge might not be adequate; the listener's background knowledge also plays an important role. That is to say, efficient comprehension that associates the listening text with listeners does not only depend on one's linguistic knowledge. In the bottom-up process, listeners depend on their comprehension on their linguistic knowledge, while the top-down process works in an opposite direction. This process is explained as employing background knowledge to understand the meaning of a message. The listeners employ prior knowledge of the context and situation within which their listening occurs to understand what they have heard. The background knowledge involves knowledge of the listening topic. We must realize that if the incoming information the listeners hear is unfamiliar to them, it cannot evoke their schemata and they can only depend on their linguistic knowledge. Besides, although the listeners can activate their schematic knowledge, they might not match it with the listening text they have heard. Thus, only relying on top-down processing may result in the failure of comprehension (Flowerdew and Miller, 2005).

Brindley (1997) and Buck (2001) shared the same view to explain two approaches that listeners use in order to understand the listening input. When listeners begin their process of understanding from the decoding of the acoustic sounds of the input, then they identify and decode the sentences until they understand the message. This approach is known as the bottom-up process. On the other hand, if the listeners begin their understanding processes from the top or the holistic view of the listening input, this is known as the top-down process.

The distinction between the bottom-up and top-down processes can be also based on different types of knowledge that is used to understand the listening input. That is, when listeners rely on linguistic knowledge, they use the bottom-up process whereas when they rely on non-linguistic knowledge, they use the top-down process to comprehend the listening input (Yi'an, 1998). Vandergrift (2002) described the top-down process occurs when listeners use their background knowledge to understand the meaning of what they are listening to. The

background knowledge of listeners covers not just the background about the topic but all kinds of information in the memory storage of the listeners such as knowledge about the context or the text type. However, not all listeners behave in such manner. Listeners may rely on their linguistic knowledge such as lexical or grammatical knowledge in order to comprehend the listening message. This type of listening process is known as the "bottom-up process".

2.2.2 Interactive Model

A recent proposed model is the interactive model (Rumelhart, cited in Flowerdew and Miller, 2005). This model suggests that the process of listening is not hierarchical as viewed by the bottom-up or top-down process model; rather, it is a parallel processing—the interaction of linguistic information such as phonological, semantic— hence one type of processing might take over the other in order to fulfill the task given. According to Vandergrift (2002, 2007), listeners use either the bottom-up or the top-down process in a parallel manner, and which process is used depends on the purpose of the listening, the characteristics of the listeners such as the level of proficiency and the context of listening. It is believed that low proficient listeners rely on the bottom-up process more than high proficient listeners. Moreover, when the context changes, the listening process also changes; for example, in listening for gist, the top-down process is in use while in listening for specific information, the bottom-up process will be at work.

In short, the listening process is an active and complex process. Traditionally, two approaches to look at the listening process are bottom-up and top-down, but it might not be a linear process. Indeed, it is an interactional process. The listeners will use whichever type of processes largely depends on the nature of the task they have to complete. Additionally, the understanding of the listening comprehension process is essential in assessing listening because in order to assess something, one must to be able to define the ability (construct) to be measured and in order to do that one has to know how it works (Buck, 2001).

2.3 Listening Assessment

Listening testing has evolved over the past years, and there has been a major shift from being able to distinguish between phoneme and sound to the emphasis on the understanding of the overall meaning of the listening text.

2.3.1 Approaches to listening assessment

Listening abilities involve invisible and inaudible processes of internalizing the meaning of the auditory signals (Brown, 2004:118); therefore, it is not easy to assess. A listening test aims to obtain the result of listening in order to assess one's listening ability. Despite its difficulty in assessing, listening skills need to be assessed. There were three major approaches to assess listening in the past, namely, the discrete-point, integrative, and communicative approaches. One of the well-known scholars in assessing listening is Gary Buck (2001) who comprehensively summarized these three approaches. The details of each approach are as follows.

Discrete-point Approach

The discrete-point approach was a common method of assessing listening during the reign of behaviorism in language teaching. It was derived from the notion of structuralism and behaviorism. It was believed that the whole knowledge of a language could be derived from testing separate units of linguistic knowledge. That is, test developers had to select important units of linguistic knowledge to assess the whole knowledge of the learners. Generally, the discrete-point approach uses the selective response format in designing a test task. Some common test types of the discrete-point approach are phonemic discrimination tasks and multiple choices.

Integrative Approach

Oller (1979:37), quoted in Buck (2001:66) suggested, "whereas discrete items attempt to test knowledge of language one bit at a time, integrative tests attempt to assess a learner's capacity to use many bits all at the same time." The test types that can be categorized under the integrative approach include gap-filling exercises, dictation, sentence repetition, statement evaluation and translation. Integrative testing has been accused of relating more to the first phase of listening, namely the literal meaning of an utterance. There is little call for inferencing and although the skills that are tested are fundamental to listening comprehension, the movement has been criticized for assessing a range of language abilities that are too narrow. This is because the communicative function of language seems secondary to testing 'isolated events' where the listener is not required to integrate the information into a context (Buck, 2001:82).

Communicative Approach

The shift towards communicative testing, undoubtedly, corresponds with the rise of the Communicative Language Teaching approach. The focus of this approach is on the communicative aspect of using a language. Ideally, the communicative approach emphasizes authenticity. That is, listeners should listen to authentic listening texts, which are related to real-world use. Another major feature of the communicative approach is that the test should be purposeful. In other words, the listener should know the purpose before listening to tasks. According to Buck (1991), communicative tests of listening ability should include tasks that evaluate 'higher-level cognitive skills' (Buck, 1991:69). Bachman (1990:356-7) identified two types of communicative tasks: the first are situational tasks that are similar to those in the TLU domain and the second are interactional, where test-takers interact with tasks by using the same or similar competencies that they would in the real world.

However, some problematic issues of communicative tests are it is difficult to cover all communicative situations, contexts and topics in one domain

of language use and the second issue concerns pragmatic inferences, i.e. one text can be interpreted differently and any interpretation is possible. Therefore, it is difficult to have complete communicative test, i.e. a test that can assess all communicative aspects of a language.

2.3.2 Listening Constructs

Prior to designing a test, the most important consideration is what to test. That is, what ability, trait or construct should be measured by a particular test. Many researchers have defined listening constructs. However, one of the most widely accepted listening constructs defined is by Buck (2001). Buck (2001) created the term "default listening construct." This defined default listening construct is based on the task-based model which is the ability:

- "To process extended samples of realistic spoken language, automatically and in real time.
- To understand the linguistic information that is unequivocally included in the text, and
- To make whatever inferences are unambiguously implicated by the content of the passage."

(Buck, 2001: 114)

Many scholars have proposed the taxonomies of listening abilities that can be used as a basis to operationally define "listening constructs". Aiken (1978, cited in Buck 2001) identified seven abilities to comprehend speech, as follows:

- Understanding the vocabulary and being able to guess the meanings of unfamiliar or unclear words from their context.

- Understanding the syntactic patterns, the morphological form and the characteristics of spoken language, and following the discourse pattern of spoken language.
- Understanding the flow of stressed and unstressed sounds, as well as intonation cues of oral punctuation.
- Identifying the speaker's purpose.
- Drawing a correct conclusion and valid inferences about the social situation, the speaker's intent or the general context.
- Recognizing the speaker's attitude to the listener and the subjects or their discussion.
- Identifying the techniques and rhetorical devices the speaker uses to convey the message.

Later, in 1993, Weir (1993:98-99) proposed what he called a checklist of operation that is essential for a listening test. This checklist includes four main groups of listening abilities (operations) that can be used in assessing listening abilities as follows:

1. Direct meaning comprehension refers to the comprehension of surface information and facts that are explicitly stated in the input text. It does not require the test takers to understand every detail, but implies a focus on those parts of information that are relevant for the task.
    - Listening for gist: This construct measures test takers' ability to understand the listening message.
    - Listening for main ideas: This construct measures test takers' ability to distinguish main ideas or important information from supporting details or examples. This includes distinguishing facts from opinions.

- Listening for specific information: This construct measures test takers' ability to listen for specific information, including the recall of important details.
- Determining speakers' attitudes and intentions: This construct measures test takers' ability to determine the attitudes and intentions of speakers from the input.

2. Inferred meaning comprehension: This includes implicit understanding and drawing inferences from input texts, i.e. the information is not clearly stated and to get the answer, therefore, requires more careful listening. Inferring means going beyond the surface information to see other meanings which are not explicitly stated in the text.
   - Making inferences and deductions: This construct measures test takers' ability to infer or make a generalization of the input.
   - Relating utterances to their social and situational context: This construct measures test takers' ability to understand the social and situational context of the input.
   - Recognizing the communicative function of utterances: This construct measures test takers' ability to recognize the communicative function of utterances and requires the test takers to infer the communicative function of the input text.
   - Deducing meaning of unfamiliar lexical items from context: This construct measures test takers' ability to guess the meaning of unfamiliar vocabulary by using the context.
3. Contributory meaning comprehension (micro-linguistics)
   - Understanding phonological features: This construct measures test takers' ability to understand and distinguish all phonological features.

- Understanding grammatical notions such as comparison, cause, result, degree, etc.: This construct measures test takers' ability to understand listening using their grammatical knowledge.
- Understanding discourse markers: This construct measures test takers' ability to understand discourse makers such as transition and conjunctions.
- Understanding the main syntactic structure of clauses or idea units: This construct measures test takers' ability to understand how sentence structures or clauses are formed.
- Understanding cohesion, especially references: This construct measures test takers' ability to understand the lexical semantic relations that are formed.
- Understanding lexis: This construct measures test takers' ability to understand vocabulary.

4. Listening and writing (note taking from lectures, telephone conversations, etc.)

- Ability to extract salient points to summarize the text, reducing what is heard to an outline of the main points, etc.: This construct measures test takers' ability to extract important points from the input and make a summary.
- Ability to select relevant key points: This construct measures test takers' ability to select main points from the input.

As seen from the discussion above, listening abilities are analyzed and classified by several scholars (Aiken, 1978; Rost, 1990; Weir, 1993; Buck, 2001), Weir's listening skill and sub-skills framework seems to be more comprehensive than others'. As claims by (2001), Weir's framework can distinguish between different types of listening tasks that students have to perform in order to complete the listening test tasks. Weir's framework includes necessary listening abilities for

EFL students. Moreover, it is not a comprehensive framework, but Weir's framework of listening abilities can be found in several standardized proficiency tests. The following section discusses the listening abilities that can be found in five standardized proficiency tests in relation to the framework proposed by Weir (1993).

2.3.3 Listening Constructs in Standardized Proficiency Tests

1. Listening Constructs of TOEFL

According to Gear and Gear, 2002 (cited in Piamsai, 2005), the listening constructs in TOEFL are as follows:

1. Direct meaning comprehension:
    - listening for gist: *identify the restatement of what the speakers have said*
    - listening for main idea(s): *identify topics, suggestions, planning, problems, etc.*
    - listening for specific information: *identifying specific details*
    - determining speakers' attitudes and intentions: *identifying attitudes, opinions, and purposes of the speakers*.
2. Inferred meaning comprehension
    - Making inferences and deductions: *drawing conclusions, making inferences, making predictions and making assumptions.*
3. Contributory meaning comprehension (micro-linguistics)
    - Understanding phonological features: *minimal pairs and homophones*
    - Understanding grammatical notions: *comparison, cause, effect, and conditions*
    - Understanding lexis: *idiomatic expression and phrasal verbs*

2. Listening Constructs of TOEIC

According to Gilfert, 1996 (cited in Piamsai, 2005) TOEIC is designed to assess English proficiency in everyday work activities of test takers. The following constructs are included in this test:

1. Direct meaning comprehension:

- listening for gist
- listening for main idea(s)
- listening for specific information
- determining speakers' attitudes and intentions

2. Inferred meaning comprehension

- Making inferences and deductions

3. Contributory meaning comprehension (micro-linguistics)

- Understanding phonological features: *minimal pairs and homophones*
- Understanding grammatical notions

3. Listening Constructs of IELTS

According to Jakeman and McDowell (2003), the listening constructs in the listening section of IELTS are as follows:

1. Direct meaning comprehension:

- listening for main idea(s)
- listening for specific information and details: *identify times, dates, names, and keywords*
- determining speakers' attitudes and intentions

2. Inferred meaning comprehension
    - Making inferences and deductions: *making predictions, making inferences about where the speakers are, what they are speaking about, and who they are.*
    - Relating utterances to their social and situational context
    - Deducing meaning of unfamiliar lexical items from context
3. Contributory meaning comprehension (micro-linguistics)
    - Understanding phonological features: *intonation and stress*
    - Understanding lexis
4. Listening and writing (note-taking from lectures, telephone conversations, etc.)
    - Ability to extract salient points to complete the note
    - Ability to select relevant key points

4. Listening Constructs of FCE

The First Certificate in English (FCE) includes the following listening constructs in its listening section. (University of Cambridge, ESOL Examination, 2008)

1. Direct meaning comprehension:
    - Listening for gist
    - Listening for main ideas
    - Listening for specific information
2. Inferred meaning comprehension
    - Deducing the meaning

5. Listening Constructs of ECCE

According to Irvine, (2002) the listening section of the Examination for the Certificate of Competency in English (ECCE) of Michigan University aims to assess the following sub-skills of listening:

1. Direct meaning comprehension:
    - Listening for gist
    - Listening for main ideas
    - Listening for specific information
2. Inferred meaning comprehension
    - Making inferences and deductions
3. Contributory meaning comprehension (micro-linguistics)
    - Understanding phonological features: *sound discrimination*
4. Listening and writing (note-taking from lectures, telephone, conversations, etc.)
    - Ability to extract salient points to summarize the text, reducing what is heard to an outline of the main points, etc.

From the review of these standardized proficiency tests, the listening constructs included in these standardized tests can be identified under the framework of Weir's listening operations. This indicates the validity of Weir's listening ability framework; therefore, it might be possible to say that Weir's framework is valid to be used as a framework in designing the English Listening Proficiency Test (ELP-Test). However, since the subjects were Thai first year students, the ELP-Test was designed to include only 1) direct meaning comprehension and 2) inferred meaning comprehension, but not 3) contributory meaning comprehension and listening and writing (note-taking from lectures, telephone, conversations, etc.) because another reason to include only these two

constructs was that these are the constructs that are included in the KMUTT listening quiz, with which the subjects were familiar.

2.3.4. Designing a Listening Test

After the constructs of a listening test are defined, the test can be developed. According to Rost (2002:171) before designing a listening test, the following three textual aspects of the spoken language that relate to the listening test must be considered.

1. Physical features that are unique to listening
    - Pause unit
    - Hesitations
    - Intonation
    - Stress
    - Variable speeds
    - Variable accents
    - Background sound
2. Linguistic features
    - Colloquial vocabulary and expression
    - Shorter, practically-organized speech units
    - False starts
    - Frequent use of ellipsis
    - More indexical expressions (keyed to visible environmental features)
    - More two-party negotiation of meaning (less original clarity)

3. Psychological features

    - Negotiative mode: the possibility for (and sometimes the necessity of interacting with) speakers to clarify and expand meaning.
    - Constructive mode: the possibility of working out meaning that fits the context, and is relevant to listeners and to the situation, incorporating visible contextual features.
    - Transformative mode: the possibility of interacting with, 'connecting' with, and influencing the speaker's ideas.

According to Rost (2002), to test listening skills, these features, as many as possible, must be included in the input; otherwise, the test might face construct validity threat. Moreover, as for the test formats, several can be used in listening test tasks. Furthermore, Rost (2002:172-173) suggests several forms of listening tests as follows:

1. Discrete item tests—Multiple choice questions, open questions.
2. Integrative tests—Open or cloze summarizing listening texts, complete or partial dictation.
3. Communicative tests—Written, oral or non-verbal tasks involving listening such as writing a letter, following directions, etc.
4. Interview tests.
5. Self-assessment—Learners rating themselves on the given criteria, or holistic assessment of their own ability.
6. Portfolio assessment—Learners evaluating periodically on their behaviors in tasks or from observations done by audio or videotapes.

In summary, in order to design an effective listening test several factors must be put in consideration. First, the listening construct must be defined to fit with each specific context. Then, textual aspects of spoken text must be carefully

planned and an appropriate test format must be considered to ensure the reliability and validity of the listening test.

2.3.5 Listening Test Validation

Test validation is essential to ensure the effectiveness and efficiency of each test. In validating a listening test, Weir (2005) proposed a socio-cognitive framework. Weir's validation framework for listening tests suggests that test validity should be examined from a number of viewpoints as seen below in Figure 1. This framework includes both *a priori* (before testing) validation, which covers context validity and theory-based validity, and *a posteriori* (after testing) validation processes, which covers scoring validity, consequential validity and criterion validity.

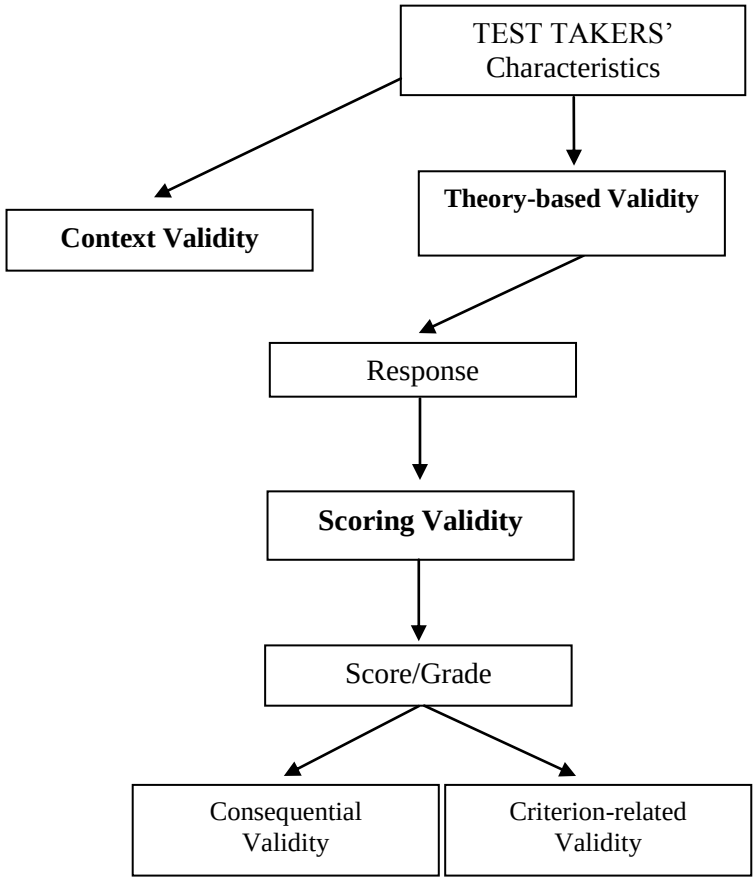

Figure 2.1: Weir's socio-cognitive framework (simplified) for validating listening tests (Weir, 2005:45)

Weir‘s validation framework (2005) covers five major types of validity. The first one is context validity referring to the choice of tasks in a test which is a representation of the large universe of tasks of which the test is assumed to be a sample. The concept is similar to the authenticity of the test as Bachman and Palmer (1996) suggest that the test should reflect the characteristics of language use in real situations. Bachman and Palmer (1996:23) defined the authenticity as “the degree of correspondence of the characteristics of a given language test task to the features of a TLU task”. The second is theory-based validity, which is a validation process which concerns the cognitive process of the test takers. It is a method to collect the evidence both before and after the test is administered. *a priori* investigation is collected before the test through piloting while *a posteriori* investigation concerns the validation of the constructs included in the test after the administration. The third type of validity is scoring validity relating to item analysis whether the item is reliable in terms of its ability to distinguish between able and less able candidates. The scoring validity in this framework can be viewed as an equivalent to reliability of the test.

The last two types of validity determine the external validity of the test. Criterion-related validity refers to the test scores and some external criterion which is believed to be a measure of the same ability while consequential validity concerns the impact of the test scores. Weir and Shaw (2005:48) suggest that test developers must address all of the following questions:

- How are the physical/physiological, psychological and experiential characteristics of candidates catered for by this test? (Test taker)
- Are the characteristics of the test task(s) and its administration fair to the candidates who are taking them? (Context validity)
- Are the cognitive processes required to complete the tasks appropriate? (Theory-based validity)
- How far can we depend on the scores on the test? (Scoring validity)

- What effects does the test have on its various stakeholders? (Consequential validity)
- What external evidence is there outside of the test scores themselves that it is doing a good job? (Criterion-related validity)

In conclusion, given the different views and approaches to listening tests and in spite of the fact that there is some consensus, it is clear that listening researchers are faced with multiples challenges when trying to master an invisible process.

2.4 Factors Affecting Listening Performance

Before looking at the factors affecting listening performance, it is useful to look at factors that affect test scores in general. Bachman (1990) identified three sets of factors that may affect students' test scores, namely communicative language ability, test method facets, and random factors, as shown in Figure 2.

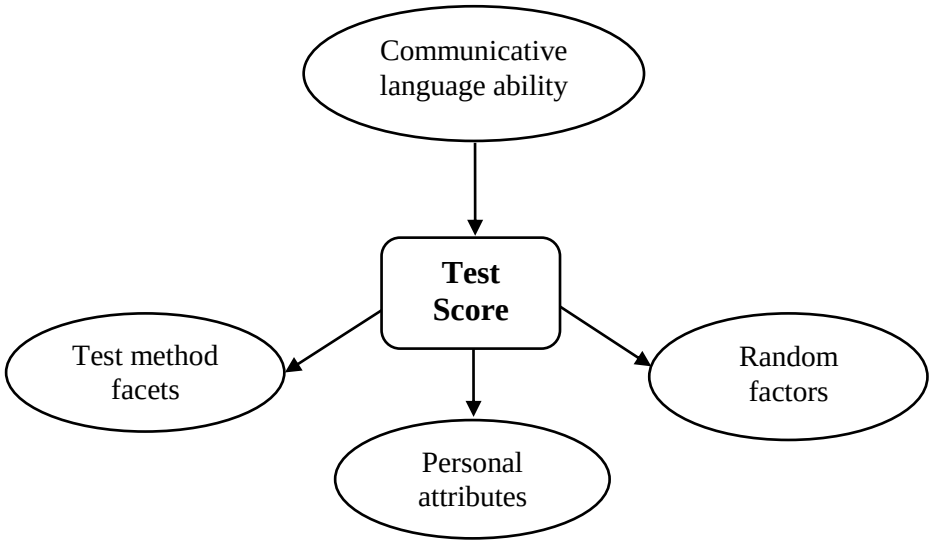

Figure 4.2: Bachman's factors affecting test scores (Bachman, 1990:165)

The first set of factors is communicative language ability, which consists of language competencies, strategic competence and psychophysiological mechanisms. The language competencies refer to test takers' knowledge about grammatical competence, textual competence, illocutionary competence, and sociolinguistic competence. The second set of factors that might affect the test scores is the test method facets, which include five components.

First, the environment of the test which includes the familiarity of the place and the equipment, testing time and the physical conditions must be considered. The second facet is the test rubrics, which include test organization, time allocation and the instruction included in the test. The third and fourth sets of the test facet are the input and the expected response which include the format and nature of the language that is used in the input. The format covers various aspects, such as channel of presentation whether aural or visual, the mode of presentation, and the form of presentation. The last type of the facet is the relationships between the input and response. The three types of relationships are reciprocal, nonreciprocal, and adaptive. Reciprocal relationship requires test takers to interact and feedback is given with the input while nonreciprocal requires no interaction. The adaptive relationship between the input and response is when the input influences the response, but without the feedback.

The third set of factors is personal attributes, relating to the characteristics of the test takers, including cultural background, background knowledge, cognitive abilities and other demographic characteristics such as sex and age. The last factor is random factors that may affect test scores. They are those factors which may be caused by unexpected changes in the test method facets such as the sudden change in the test environment while test takers are performing on a test. Bachman's factors affecting test scores are probably one of the most comprehensive lists of factors to consider prior to test development. It is also one of the most used frameworks for the studies of factors affecting test performance.

However, since the focus of this study is on the listening skill, the following section will review factors affecting listening performance or listening scores.

The students' test performance can be affected by several factors. Bachman (1990) described four major factors that influence students' scores: communicative language ability, test method facets, learners' characteristics, and random factors. Bachman's framework gave an overall picture of what the factors affecting test scores are. However, regarding listening performance, previous studies have shown that there are also several factors that may affect the listening performance.

According to Boyle (1984), factors affecting listening comprehension could be divided into three dimensions: listeners' factors, speakers' factors and factors in the materials and medium. Listeners' factors can be divided into two sub-groups; one is the general factor which includes experience/practice, general intelligence and general background of the world. The other is the more specific factors about the listeners, i.e. their physical and educational characteristics, intellectual property and psychological characteristics of the listeners. Speakers' factors include the language ability of the speakers, speakers' production, speed of delivery, and prestige and personality of the speakers. The last group of factors is the factors concerning the material and the medium. These include the language used to convey the message, difficulty of the content and the concept, acoustic environment and the amount of supports.

Later, based on previous studies on factors affecting listening difficulties, Brindley and Slatyer (2002:375) summarized the factors that affect the difficulty of listening test tasks, i.e. the factors that affect the listening performance of listeners. They categorized three major groups of factors that may affect listening performance: the nature of the input, the nature of assessment tasks and the individual listener's factors. Each category includes various aspects as follows:

- The nature of the input: speech rate, length of the passage, syntactic complexity, vocabulary, discourse structure, noise level, accent, register, propositional density, amount of redundancy, etc.;
- The nature of assessment tasks: the amount of context provided, clarity of instructions, response format, availability of question preview, etc.; and
- The individual listener's factors: memory, interest, background knowledge, motivation, etc.

The identification of factors affecting listening abilities is crucial and it will help test designers to create a test task that minimizes their effects. Brindley and Slatyer's classification of factors affecting listening difficulty is quite comprehensive and can be used as a basis to examine the factors that affect the listening performance of students.

2.5 Previous Studies on Factors Affecting Listening Ability/Proficiency

As seen in the above section, Brindley and Slatyer (2002) have comprehensively categorized factors that affect listening ability of students. Therefore, previous studies on the factors affecting listening performance are discussed based on the three groups identified by Brindley and Slatyer (2002), namely factors from the nature of the input, the nature of the assessment task and the individual listener's factors.

The nature of input

As suggested by Brindley and Slatyer (2002), the nature of the input includes speech rate, length of the passage, syntactic complexity, vocabulary, discourse structure, noise level, accent, register, propositional density, amount of redundancy, etc. Several studies have focused on this aspect of factors. Shohamy

and Inbar (1991) investigated the effects of text types and question types on listening comprehension of Hebrew-speaking learners of English. They found that different text types affected the performance of test takers. Shohamy and Inbar (1991) compared three different text types: a news broadcast, a lecturette, and a consultative dialogue. The result indicated that the more orally oriented the text type (a consultative dialogue) was, the more difficult it was. As a result, the test takers received lower scores from listening to the consultative dialogue than when they listened to news broadcasts. Teng (1998) studied the effect of cultural schemata on listening comprehension. He found that Chinese learners performed better on the topic of Confucius and the Dragon Boat Festival than on the topics about Americans such as the Amish and Thanksgiving Day.

Read (2002) investigated the effect of two listening stimuli—monologue and discussion in English for Academic Purposes (EAP) among overseas students who studied at New Zealand and Australian universities. The results from his study were in contrast with those of Shohamy and Inbar (1991). Based on the orality and literate continuum, participants performed significantly better on the monologue text type (more literate oriented text type). Major et al. (2002) carried out a study on the effects of nonnative accents on listening comprehension. The participants of the study were 400 ESL students from various L1 backgrounds. After listening to both native and non-native speakers on the listening comprehension test, the result indicated that the participants' scores were significantly lower when nonnative accented listening stimuli were used. Moreover, there was also an interaction effect of participants' native language and the varieties used in the listening test. Spanish students performed significantly better when they listened to a Spanish accent whereas Chinese students could not perform well even when they listened to Chinese listening stimuli. The researchers concluded that including nonnative varieties of English may create test bias, hence create threat to the construct validity of the test.

The nature of assessment tasks

The nature of assessment tasks is essentially the heart of language assessment. Test developers do not want their assessment tasks to create undesired effects of testing. Many studies have confirmed that the nature of assessment does play an important role although the test meets the purpose it is designed for. Chiang and Dunkel (1992) studied the effect of speech modification, prior knowledge, and listening proficiency on listening comprehension of EFL Chinese students. The study revealed that for both passage-dependent and passage-independent items the participants' scores were higher on familiar topics than on the topics that they were not familiar with.

Buck and Tatsuoka (1998) specifically investigated the effect of test format, i.e. short-answer comprehension questions. They suggested three listening components that may cause difficulty for test takers.

- The necessary information (NI): If test takers can locate the necessary information, they are likely to perform well on that test. The location of NI may affect the item difficulty and test takers' response.
- The surrounding text: This refers to the immediate text surrounding the necessary information. It should be noted that the surrounding text has more effect on item difficulty than on the whole text.
- The stem: This refers to the information written on the answer sheet that test takers have while performing listening tests.

Regarding the effect of visual condition, Ginther (2002) studied the present and absent conditions of three types of listening stimuli: dialogues, academic discussions and mini-talks, on the listening performance of high and low language proficiency students on a computer-based listening test in order to

find out the interaction effects among the three variables. The study revealed the significant interactions among the three variables. Ginther (2002) also suggested that among the three, the interaction between types of stimuli and visual condition might be the most interesting. That is, the presence of visual stimuli would be beneficial only when the visual supports the aural portion of the stimuli.

Hale and Courtney (1994) were interested in the effect of note-taking on the listening comprehension section TOEFL. The focus of their study was on the effect of note-taking on the mini-talks section of the TOEFL test. The results revealed no significant effect on test takers' performance because of note-taking. In fact, supporting test takers to take notes actually weakened their performance. Unlike the results obtained from the study of Hale and Courtney (1994), Carrel et al. (2004) investigated the interaction effect of note-taking, lecture length and topics on listening performance of ESL students. The results indicated that test takers performed better when note-taking was allowed on the topic of arts and humanities but not on physical science. Regarding the length of the lecture, note-taking was useful in a short lecture but no significant result was reported on the longer lecture.

The individual listener's factors

In relation to the individual listener's factors, several studies have been conducted to find out how the characteristics of listeners affect their listening performances. Schmidt-Rinehart (1994) paid attention to topic familiarity and its effect on second language listening comprehension among Spanish university students. The participants listened to familiar topics and novel topics. The scores obtained showed that the participants performed better on the familiar topics than on the novel ones. She concluded that topic familiarity played an important role in facilitating listening comprehension. In'nami (2006) focused on the listener's factor that may affect the listening ability of Japanese ESL students. The study focused on the effect of test anxiety on the listening test performance of the test

takers. The study showed that test anxiety evidently did not have any effects on the listening performance of the test takers.

However, Arnold (2000) assumed that test anxiety was a problem of test takers; she then conducted a study to find a way to reduce test anxiety, hence improve the test scores of test takers. She implemented visualization-relaxation training in order to reduce test anxiety of test takers. The scores from the post-test indicated that the experimental group performed better than the control group. Therefore, the visualization-relaxation training reduced the anxiety that test takers had, resulting in the improved scores of the students.

In 2005, Othman and Vanathas studied the impact of topic familiarity on listening comprehension of Malaysian ESL students. After the treatment, teaching lessons to familiarize students with topics, the comparison of pretest and post-test was made and the result indicated that the participants scored higher in the post-test. This result indicated that listening comprehension can be affected by the degree of topic familiarity. The more students are familiar with the topic, the better comprehension they will have. Sadighi and Zare (2006) investigated the effect of background knowledge on a TOEFL preparation course on ESL students. Two groups of ESL students taking a TOEFL preparation course participated in the study. After the treatment to activate and give background knowledge for the participants, the result indicated that the participants in the experimental group outperformed those in the control group. This indicated the benefits of background knowledge on listening comprehension.

In conclusion, the literature seems to highlight the highly complex nature of the listening process as well as the difficulties in attempting to measure listening abilities. However, according to Bradley (1998), there is still a lot of research to be done that might lead to better empirical basis in the field of listening skills. Therefore, this study narrowed down the range of possible factors and explored if three types of listening support, including question preview,

vocabulary preview, and repeated input, will reduce the negative influence from the factors that are claimed to affect listening performance. This study focused on the effect of listening supports in listening testing situations of Thai first-year students. The following sections are literature related to these three different types.

2.5 Listening Supports

According to Nation and Newton (2009:46), in teaching listening, it is beneficial to provide supports to students and they listed four ways that listening supports can be provided:

- By providing prior experience with aspects of the text (i.e. with the language, ideas, skills or text types)
- By guiding the learners through the text
- By setting up a cooperative learning arrangement (like the shared reading approach)
- By providing the means in which learners can achieve comprehension by themselves

However, in a testing situation, the way to support listening is slightly different. Underwood (1989) mentioned that it is not fair for foreign language learners to suddenly listen to a listening text, even in a testing situation; they should be adequately "tuned in" through a variety of pre-listening activities such as previewing questions or pre-discussion about the topic, etc. These pre-activities can help students to draw on their linguistic and non-linguistic knowledge and provide a context for interpretation and can activate background knowledge (Buck (1995) cited in Chang and Read, 2006). Similarly Mendelsohn (1995) suggests that the pre-listening activities are "to activate the students' existing knowledge of

the topic in order to link what they comprehend and to use this as a basis of their hypothesis-information, prediction, and inferencing" (Mendelsohn, 1995:12).

According to Chang and Read (2006), listening supports can be divided into two types. The first type concerns pre-activities such as vocabulary preparation, providing background knowledge about the topic, etc. These pre-activities can help students to draw on their linguistic and non-linguistic knowledge and provide a context for interpretation and can activate background knowledge (Buck, 1995 cited in Chang and Read, 2006). The second type of supports includes those incorporated in the listening test design such as repeated listening or contextual visual, etc.

In this study, three types of supports are included, namely question preview, vocabulary preview, and repeated input. The first type of support is topic preparation. There is limited information in this type of support. That is, the ability to preview the questions of the listening text. According to Chang and Read (2006), this is the most effective type of support. That is, their study on the effects of listening supports showed that students in the topic preparation group performed better than other groups of listening supports in the experiment. Moreover, students reported that knowing the topic of the listening test helped them to pay attention to the details in the listening texts. With a limited number of studies on this aspect, however, it is worth investigating further as a form of listening support.

The second type of listening support is vocabulary preview; according to Goh (1998), vocabulary was reported to be the most difficult in listening. Therefore, providing vocabulary preparation might reduce the difficulty of listening comprehension. Berne (1992) investigated the effect of vocabulary preview. The results indicated that vocabulary previewing itself had no salient effect on the students' listening comprehension. Also, Elkhafaifi (2005) examined the effect of pre-listening activities (question preview or vocabulary

preview) and repeated exposure on listening comprehension scores of Arabic students. The findings showed that all forms of supports have certain positive effects on listening comprehension, but repeated exposure had greater effects than the others. However, not all studies support this finding.

In 2000, Chaing examined the effect of various ways to present vocabulary on the listening comprehension of Taiwanese university students. The results showed that giving vocabulary clues in advance could help listeners to have a better understanding of the text. Hsu (2005) studied the effect of lexical instruction among Taiwanese EFL students. The condition was that participants were divided into three groups. Each received a different type of vocabulary instruction: single-item vocabulary, lexical collocation or no instruction. The study revealed that participants in lexical collocation instruction groups got the highest scores. Tsai (2005) investigated the relationship between receptive English vocabulary sizes and listening comprehension competence of EFL students and the results showed that there was a significant positive correlation between a listening vocabulary level test and a listening comprehension test. However, in 2006, Chang and Read studied the effect of four listening supports, which included vocabulary instruction. The result indicated that the students in the vocabulary instruction group obtained the lowest scores. The studies on the effect of vocabulary preview or preparation seem to reveal that vocabulary preparation solely does not facilitate listening comprehension. As can be seen, findings concerning the effect of vocabulary preparation are still varied; in fact, if we focus on the effect of vocabulary preparation incorporated in the test, the finding is still limited. Therefore, this type of support needs further investigation.

Another form of listening support that has been studied is the effect of repetition or repeated input. Cervantes and Gainer (1992) investigated the effect of repetition on listening comprehension; the study showed that repetition facilitated the listening comprehension of students. In 2002, Chung investigated the effect of repetition on the listening comprehension of Taiwanese college

students. The study revealed that there was no concrete evidence to show the relationship between repetition and the enhancement of listening comprehension. In fact, there was even a negative relationship between listening proficiency and listening frequency.

With the findings of previous studies, the researcher obtained background information in the field of listening comprehension. The answer to the effect of different forms of listening support is still inconclusive and further study in the field is needed. The researcher has chosen only three forms of listening supports, namely repeated input, vocabulary preparation and topic preparation. The reason for the selection of repeated input and vocabulary preparation is based on the contradictory results from previous studies as mentioned above. The reason for selecting topic preparation is that there are limited studies on this aspect even though it is believed that background knowledge is one source of knowledge that students need to use in order to perform well in the listening test (Buck, 2001). Therefore, it is beneficial to see whether these three types of listening supports affect students' listening performance and which support is the most helpful for students.

2.7 Listening Strategies

Listening strategies are ways to make listeners listen more effectively and efficiently. Rubin (1994) suggested that despite a large number of researchers in learning strategies, the number of studies specifically focusing on listening strategies is relatively small. However, similar to the concept of learning strategies, listening strategies can be mainly classified into cognitive, metacognitive and socio-affective listening strategies.

Cognitive Listening Strategies

Cognitive strategies are direct strategies that listeners use to tackle problems (Oxford, 1990). They refer to the actual action process that listeners

follow in order to complete listening test tasks. Several researchers (Rubin, 1994; Vandergrift, 1997; Goh, 2002) have come up with their own groups and sub-groups of cognitive listening strategies. Vandergrift (1997:392-395) identified seven cognitive listening strategy categories and sub-categories as follows:

1. Inferencing: using information within the text or conversational context to guess the meaning of unfamiliar language items associated with a listening task, or to fill in missing information. Four sub-strategies are included in this:
    - Linguistic inferencing is when listeners use known words in an utterance to guess the meaning of unknown words.
    - Voice inferencing: using tone of voice and/or paralinguistics to guess the meaning of unknown words in an utterance.
    - Extralinguistics inferencing: this is when listeners use their background sounds and relationships between speakers in an oral text, material in the response sheet, or concrete situational referents to guess the meaning of unknown words.
    - Between-parts inferencing: using information beyond the local level to guess at meaning.

2. Elaboration: using prior knowledge from outside the text or conversational context and relating it to knowledge gained from the text or conversation in order to fill in missing information. This strategy includes five types of elaboration, namely
    - Personal elaboration, which is the referring to prior experience personally
    - World elaboration, which is the use of knowledge gained from experience in the world
    - Academic elaboration: This is when listeners use their knowledge gained in academic situations

- Questioning elaboration: This is the use of a combination of questions and world knowledge to brainstorm logical possibilities.
- Creative elaboration making up a storyline or adopting a clever perspective

3. Imagery: This is the use of mental or actual pictures or visuals to represent what is heard.
4. Summarization: This strategy is making a mental or written summary of language and information presented in a listening task.
5. Translation: This strategy is to translate ideas from one language to another in a relatively verbatim manner.
6. Transfer: This is the use of knowledge of one language (e.g., cognates) to facilitate listening in another language.
7. Repetition: This is when listeners repeat a chunk of language (a word or phrase) in the course of performing a listening task.

Similarly, Goh (2002:192) identified eight categories of cognitive strategies with 16 tactics for listening that Chinese ESL learners used.

1. Inferencing covers the tactics to fill in missing information and guessing meaning of words. This includes the use of context clues, the use of information from familiar content words, the use of knowledge of the world, the application of knowledge about the target language, and the use of visual clues.
2. Elaboration covers the tactics to embellish an interpretation to make it meaningful and complete. This includes the use of knowledge of the world and knowledge about the target language to interpret the input.
3. Prediction refers to the anticipating of contents before and during listening. This includes the tactics to anticipate general (global) content and details (local) while listening.
4. Translation refers to the changing of words, phrases or sentences into L1 before interpretation.

5. Fixation is when the listeners focus attention on understanding a small part of a text.
6. Contextualization refers to the tactics to relate new information to a wider familiar context. The tactics included in this type of strategy are placing input in a meaningful context, finding related information on hearing a key word and relating one part of the text to another.
7. Visualization refers to strategy to form a mental picture of what is heard.
8. Reconstruction refers to the use of words heard to create meaning. Students use words to reconstruct the meaning from words heard or from notes taken.

Goh's listening cognitive categories are similar to those of Vandergrift (1997). Both strategy lists include inferencing, elaboration, imagery or visualization, and translation, but there are also differences. For example, in Vandergrift's list, there are summarization, transfer and repetition while Goh's classification includes prediction, fixation, contextualization and reconstruction. Goh's classification is additional to what Vandergrift and other scholars (O'Malley et al., 1989, Rubin, 1994) have suggested. Therefore, with more details of the descriptions of listening strategies, Goh's classification will be used as a framework in developing a questionnaire and questions of a retrospective interview to find out about the listening strategies that Thai EFL learners use in this study.

Metacognitive Listening Strategies

Oxford (1990) defined metacognitive strategies as strategies that are used indirectly in performing tasks. This group of strategies normally includes the strategies that the test takers use to organize, plan, monitor and evaluate their listening performance. Vandergrift (1997: 392-39) identified four metacognitive listening strategies.

- Planning: Developing an awareness of what needs to be done to accomplish a listening task, developing an appropriate action plan and/or

appropriate contingency plans to overcome difficulties that may interfere with successful completion of a task.

- Advance organization: To clarify the objectives of an anticipated listening task and/or purpose
- Directed attention: To decide in advance to attend in general to the listening task and to ignore irrelevant distracters; maintaining attention while listening.
- Selective attention: A decision made to attend to specific aspects of language input or situational details that assist in understanding and /or task completion.
- Self-management is the understanding of the conditions that help one successfully accomplish listening tasks and arranging for the presence of those conditions.

1. Monitoring which includes checking, verifying, or correcting one's comprehension or performance in the course of a listening task. Two types of monitoring are included.
    - Comprehension monitoring, i.e. checking, verifying, or correcting one's understanding at the local (details) level.
    - Double-check monitoring is checking, verifying, or correcting one's understanding across the task or during the second time through an oral text.
2. Evaluation refers to the checking of the outcomes of one's listening comprehension against an internal measure of completeness and accuracy.
3. Problem identification is when listeners explicitly identify the central point needing resolution in a task or identifying an aspect of the task that hinders its successful completion.

Among metacognitive listening strategies, planning is used before listening monitoring and problem identification and, after listening to the test tasks, evaluation is performed. Goh (2002) also classified her own categories of

metacognitive listening strategies and tactics. She divided them into six strategy groups as follows:

1. Pre-listening preparation: The listeners mentally prepare for listening tasks by previewing the content and rehearsing sounds of potential content words.

2. Selective Attention: This is when the listeners notice the specific aspect of input.
    - listen to words in groups
    - listen for gist or general information
    - listen for familiar content words
    - notice how information is structured (e.g. discourse markers)
    - pay attention to repetitions
    - notice intonation features (e.g. fall and rise tones)
    - listen to specific parts of the input
    - pay attention to visual and body language
3. Direct Attention: The monitoring attention and avoiding distractions, i.e. listeners must 3.1) concentrate hard and 3.2) listen in spite of difficulty.
4. Comprehension Monitoring: The checking and confirming of the understanding while listening, i.e. listeners 4.1) confirm the comprehension took place, 4.2) identify words or ideas not understood, 4.3) check current interpretation and context of the message, and 4.4) check current interpretation and prior knowledge.
5. Real-time Assessment Input: To determine the value of specific parts of the input by 5.1) assessing the importance of problematic parts and 5.2) determining the potential value of the subsequent part of the input.
6. Comprehension Evaluation: To interpretation checking for accuracy, completeness and acceptability after listening, i.e. when listeners 6.1)

check interpretation against some external sources, 6.2) check interpretation by drawing on prior knowledge and 6.3) match interpretation with the context of the message.

Goh's categories of metacognitive strategies may not be totally different from what Vandergrift has proposed; but rather, she classified them in more detailed descriptions and the tactics identified give a more clarified picture of listening strategies and tactics. As Berne (2004) suggested, despite its limitations, Goh's classification of cognitive and metacognitive tactics are useful. It takes listening strategy research to the next level and the distinction between strategies and tactics is essential as it may give a researcher a more accurate description of what students do when they listen (Berne, 2004). Berne (2004:528) cited that "Goh was able to describe not only the particular approaches that learners take when listening, but also the actual steps taken to assist or enhance comprehension" However, Goh (2002:3) suggested that "although individual tactics were useful, successful comprehension also depended on whether the listeners were able to combine various mental tactics in a way that could truly enhance comprehension".

In conclusion, many scholars have proposed the framework to understand listening strategies (O'Malley et al. (1989), Rubin (1994), Vandergrift, (1997), Goh (2002); however, the researcher decided to adapt Goh's framework to examine listening strategies. The strategies and tactics before listening, while listening and after listening can be observed. Therefore, the researcher believes that this framework is useful and can be used as the basis for this study. In addition, this study concentrates on cognitive, metacognitive, and affective strategies that the students use when they take a listening test. Table 2.1 shows listening strategies and sub-strategies used in this study.

Table 2.1: Listening Strategies Used in this Study

I: Metacognitive Strategies
Sub-strategies and description **Planning**: Clarifying the objectives; make sure of what to do **Directed attention :** Deciding in advance to attend to listening task and ignore irrelevant distracters; maintaining attention **Selected attention:** Deciding to attend to specific parts of the listening input **Comprehension monitoring:** Checking, verifying and confirming one's comprehension
Evaluation: Checking the outcomes of one's comprehension/interpretation against an internal measure of completeness and accuracy
Problem identification: Identifying one's problems
II: Cognitive Strategies
Prediction: Anticipating the content of the listening test **Inferencing:** Using information within the listening text or conversational context to guess the meaning of unfamiliar words associated with the listening test, to predict the outcomes, or to fill in missing information **World Inferencing:** Drawing on knowledge of the world **Linguistics Inferencing:** Using known words in the listening to guess the meaning of unknown words. **Elaboration:** Using prior knowledge from outside the text and relating to

knowledge gained from the text to fill in missing information **Personal elaboration:** Referring to prior personal experience

Table 2.1 (continued): Listening Strategies Used in this Study

Contextualization: Relating new information to a wider familiar context **Translation:** Changing words, phrases, or sentences to L1(Thai), mentally and verbally **Repetition:** Repeating a chunk of words or a phrase while performing a listening task **Note-taking:** Writing down keywords to assist performance of the listening task **Visualization:** Forming a mental picture of what is heard
III: Affective Strategies:
Lower Anxiety: Reducing anxiety to make one feel more competent to perform the test **Using positive talk:** Providing personal motivation through positive talk

2.8 Previous Studies on Listening Strategies

In the past two decades, the number of studies on listening comprehension strategies has been continually increased. Based on the three stages of the listening process—perceptual processing, parsing and utilization, O'Malley et al. (1989) investigated the strategies used among ineffective and effective listeners. They found that effective and ineffective listeners employed the following strategies differently at each stage of cognitive processing:

- Perceptual processing: At this stage effective listeners tended to use monitoring strategies to control their attention in their listening

whereas ineffective listeners might not be able to retain their attention.

- Parsing: At this stage, inferencing strategies were employed. Effective listeners focused on a large chunk of the information whereas ineffective listeners tried to understand the information word-by word.
- Utilization: At this stage, the focus strategies are on elaboration. Effective listeners also used these strategies more than ineffective listeners.

Moreover, the study claimed that effective listeners tended to use the top-down strategies more, but when it was necessary they could also use the bottom-up process strategies in order to complete the task. On the contrary, ineffective listeners tended to heavily rely on the bottom-up strategies.

Shohamy and Inbar (1991) investigated question types (global, local, and trivial questions) on listening comprehension of Hebrew-speaking learners of English. The results indicated that the test takers performed better on the local question type than on the items of the global question type. Moreover, less skillful listeners tended to rely on the data from the listening stimuli to come up with the answer for the task (bottom-up strategies) whereas more skillful listeners tended to begin the process of solving the test task by hypothesizing the answer based on their knowledge (top-down strategies).

In 1997, Vandergrift examined listening strategies among L2 French learners. The results showed that the most frequently used strategies among high proficient learners were cognitive strategies, followed by metacognitive and socio-affective strategies. Goh (1998) investigated the differences in the use of cognitive and metacognitive strategies of Chinese ESL listeners at different listening abilities. The results indicated that high-ability listeners used more

strategies and tactics than the low ability ones. Moreover, based on Oxford's Strategy Inventory for Language Learning, Teng (1998) investigated listening comprehension strategies among Taiwanese college students. The results showed that compensation strategies were the most frequently used and when looking at each strategy, translation was the most used strategy. Moreover, the study revealed that effective listeners employed more strategies than ineffective listeners.

Concerning the strategies used by different levels of ability, Purpura (1999) studied the strategies used by high and low ability test takers. The results indicated that listening strategies were employed differently across different levels of ability. Purpura's (1999) taxonomy of listening strategies includes metacognitive and cognitive strategies. The metacognitive strategies identified by Purpura are goal-setting processes, assessment processes and planning processes, while the cognitive strategies used in performing listening tasks are comprehending processes, storing processes, and retrieval processes.

Instead of looking at a broad view of metacognitive and cognitive listening strategies, Goh (2002:192) focused her study on a narrow scope by using the term "tactics" to identify how students process listening input through metacognitive and cognitive listening strategies. In her 2002 study on listening strategies, the finding indicated that the participants with the higher level of ability used both cognitive and metacognitive strategies more effectively. She concluded that even though each tactic might be useful in comprehension, the interactions between mental processes are also important.

Using a metacognitive questionnaire, Vandergrift (2003) investigated listening strategies used by L2 (French) students and the differences in strategy use between the less- and more-skillful students. Based on his metacognitive questionnaire, the results indicated that the participants across different abilities employed strategies differently. More-skillful listeners tended to use more

metacognitive strategies than the less-skillful participants. Moreover, there were also differences in the use of strategies under metacognitive strategies: monitoring, elaborating, and translating. In addition, Chang (2003) examined the difference of strategy use between high and low proficiency college students. The study indicated that the difference of strategy use between high and low proficiency students was statistically significant.

In Thailand, Piamsai (2005) studied the use of cognitive and metacognitive strategies across two levels of ability: high-listening ability and low-listening ability of Thai university students at Chulalongkorn University. The study revealed that the high-listening ability participant group employed more cognitive and metacognitive strategies than their low-listening ability counterparts.

Based on the work of O'Malley et al. in 1989 and Vandergrift in 1997, Lui (2008) studied the relationship between listening strategies and levels of proficiency of Taiwanese EFL students. The result indicated that the levels of proficiency had a significant effect on listening strategies. In brief, it was found that previous studies in listening strategies can facilitate the performance of students. Moreover, strategies are employed differently depending on several factors such as the levels of proficiency and the tasks that students are doing. It should also be noted that strategies are usually used in specific situations. One may change his/her strategies according to a particular task. This study will focus on the listening strategies the test takers will employ to help them come up with the answers while performing the listening test tasks.

2.9 Listening Strategies and Factors Affecting Listening Performance

One of the major groups of factors affecting listening task difficulty is the individual listener's factors which include memory, interest, background knowledge, motivation, etc. In other words, this group of factors concerns the

characteristics of test takers. In this study, the use of listening strategies is included in this group of factors. As supported from previous studies, the students who can employ listening strategies effectively are normally more proficient listeners. That is, students who effectively use strategies perform better than those who do not use them or could not use them effectively. O'Malley et al. (1989) investigated the strategies used among ineffective and effective listeners. They found that effective and ineffective listeners employed strategies differently at each stage of cognitive processing. Vandergrift's study in 1997 also showed that students who had a high level of proficiency tended to use more strategies than their low-level proficiency counterparts.

Also, Purpura (1999) studied the strategies used by high and low ability test takers. The results indicated that listening strategies were employed differently across different levels of ability. In her 2002 study on listening strategies, the finding indicated that the participants with the higher level of ability used both cognitive and metacognitive strategies more effectively. Vandergrift (2003) investigated listening strategies used by L2 (French) students and the differences in strategy use between the less and more skillful students. We can link the notion of listening strategies to learners' factors in the framework of Brindley and Slatyer (2002).

In summary, even though the relationships among factors can affect listening performance, listening supports and listening strategies are not well explicitly stated but can be concluded from previous studies. Therefore, it can be summarized that the relationships among the three aspects are: First, "repeated input can be related to both the nature of input and the nature of assessment tasks, but it is not conclusive whether this type of support is related to the nature of the input." That is, whether the frequency of listening can affect the performance differently. As for vocabulary preview and question preview, they are clearly related to the nature of assessment tasks; as, in this study, these two forms of supports will especially be incorporated within the test design. In other words, the

key vocabulary and the background of the topic content will be written in the test paper. In addition, the researcher also acknowledges the relationships among the three types of listening supports and the individual learners' factors.

2.10 Review of Research Design

Two-way ANOVA design or two-way factorial design is a research design that is used when the study includes two or more independent variables (factors). This type of design allows the researcher to test the effectiveness of two independent variables or more and the researcher is able to simultaneously assess the effect of two independent variables on a single dependent variable within the same analysis. Two-way ANOVA produces *F-ratios* which represent the amount of variance accounted for by the factors relative to the amount of random error variance. There are F-ratios for the main effects as well as one for the interaction effect. Moreover, in using Two–way ANOVA, Plonsky (2002:1) stated eight possible outcomes of the analyses as follows:

- Nothing is significant. Here is one possible representation of this outcome.
- The main effect of factor A is significant. Here is one possible representation of this outcome.
- The main effect of factor B is significant. Here is one possible representation of this outcome.
- Both main effects are significant. Here is one possible representation of this outcome.
- The interaction is significant. Here is one possible representation of this outcome.
- The interaction and the main effect of factor A are significant. Here is one possible representation of this outcome.

- The interaction and main effect of factor B are significant. Here is one possible representation of this outcome.
- The interaction and both main effects are significant. Here is one possible representation of this outcome.

In short, Two-way ANOVA design is a research design used when the study includes two or more independent variables with different levels. It allows the researcher to observe simultaneous effects of independent variables that occurs on the dependent variable.

Advantages of Two-way ANOVA

Two-way ANOVA design possesses many strengths or advantages that make it useful for researchers to use as a design for their study. First of all, this type of design allows the researcher to include more than one variable and also the effects of each independent variable on the dependent variable are separately assessed. For example, in this study the researcher examined the effect of each form of listening support on the listening abilities of the participants. This type of effect is known as the main effect. Moreover, it is not just the main effect that Two-way ANOVA gives but it also shows that one can study the "interaction effect". The interaction effect "occurs whenever one factor modifies the effects of a second factor" (Gravetter and Forzano, 2006: 280), or another definition of interaction effect is that interaction occurs thus: "when the effects of one factor depend on the different levels of the second factor, then there is an interaction between factors" (Gravetter and Forzano, 2006:282). The notion of main effect and interaction effect is probably one of the major strengths of Two-way ANOVA as one cannot see these joint effects by using One-way analyses (Stevens, 2002). In addition, Gravetter and Forzano (2006) suggest that another good point of Two-way ANOVA is that the design realizes there is a tendency that the behaviour of a certain thing is changed due to more than one factor; therefore, using the factorial design will give a realistic picture to the realistic situation rather than just investigating one factor in isolation.

Moreover, according to Plonsky (2009), there are three important advantages to the factorial design; first, it is economical because the design provides more information from the same amount of work. As suggested by Fraenkel and Wallen (2006), the factorial designs "are efficient ways to look at several relationships in one set of data" (2006:280). Secondly, it provides experimental control and increases the generality of the results, and the third advantage is that the factorial design is the only way that we can investigate the interactions among independent variables.

In addition, it is proposed in Wikibooks (cited in Jaturapitakkul, 2007:155) that using a two-variable design ANOVA is an increase in statistical power. The power is the ability to confidently reject a false NULL hypothesis. This type of research design increases statistical power because the within-group variance tends to be smaller than that of a comparable one-variable study (one-way ANOVA). The smaller the variance, the less fluctuation in measure there is. Therefore, the smaller the F-ratio; therefore, the smaller the confidence interval which means that we are more likely to have chosen a smaller range of possible values which, in turn, restricts the range of possible values for statistical significance; thus, greater statistical power in correctly rejecting a false NULL hypothesis. Additionally, Stevens (1999:149) stated that another advantage of the Two-way Design is that "it will lead to a more powerful test by reducing error (within a cell)".

Limitations of Two-way ANOVA

Even though a two-way factorial design is useful, it is important to keep in mind that there are some limitations. The limitations here will be discussed in terms of the assumptions before using the Two-way ANOVA. First, what are the assumptions? The assumptions are the conditions under which a statistical procedure was designed to give valid results. Plonsky (2009:1) listed six assumptions that are essential to the Two-way ANOVA:

- The groups are randomly sampled: The researcher must ensure that the participants in the study must be selected using the random sample technique.
- The groups are independent: Independence assumes that the observations are unrelated to one another.
- Homogeneity: The researcher must ensure that the population variances in the study are homogenous. If the samples are not homogenous, it might violate the assumption; hence, make the study insignificant.
- Normal distribution: The population distribution of the dependent variable is normal in shape. Also, the data must be interval scale.
- Numbers are equal and greater than 1 (typically at least 5).
- Factors are fixed, that is, the experimenter purposely chooses the levels of the independent variables.

These are the assumptions that the researcher needs to be cautious before conducting a study using the Two-way ANOVA design. Also, there are other important things to keep in mind after the result is obtained. According to Bordens and Abbott (2006), if both main effect and interaction effect are significant, careful interpretation must be in order. They suggested that if the interaction effect is present, avoiding interpreting the main effect is suggested. They stated that "certain kinds of interactions can cancel out main effects" (Bordens and Abbott, 2006:434). In addition, researchers should keep in mind that the Two-way ANOVA is non-directional. That is, it does not answer details about the direction of the effect, or of specific differences among levels of the factor. ANOVA only tells us that the mean of each group of sample is not equal. That is, it only tells us that there is an effect but it does not give the details of what the effect is (Field, 2005). However, further tests are available for the researchers to find that specific effect by using post hoc tests.

In conclusion, the Two-way ANOVA design is useful and appropriate to the present study as it includes two independent variables. However, the researcher must be aware of the assumptions and avoid any violations to these assumptions as they might lead to invalid results of the study. In this study, the above assumptions have been met.

Summary of the Chapter

In summary, this chapter discussed the literature related to this present study, including several theories and related studies on the basis of these research areas, listening comprehension and its process, and the factors affecting listening performance; listening assessment and listening strategies and its effects, which are essential for the background and context of this study. Also the review of the research design used in this study was presented. These studies show that researchers have become aware of the importance of listening performance and listening strategies. However, the issues focused on in this study remained limited in the Thai EFL context and in need of more empirical studies. The results of this study may give more useful information to better understanding English instruction and assessment particularly listening testing and listening strategies.

CHAPTER 3

RESEARCH METHODOLOGY

This chapter describes the methodology of the study and provides the rationale behind the selected instruments and procedures for data collection. This chapter includes the following sections: research questions and design, participants, instruments, data collection and procedures, and data analysis.

3.1 Research Design

In conducting a research study, it is important to think about the research design that is appropriate to the set hypotheses. There are several types of research designs such as descriptive research, experimental research, etc. What type of research design the researchers want to use depends on the research questions they have set and the number of variables included in the study. For example, if the researchers want to investigate students' attitudes towards the new Self-Access Learning Centre, the researcher can just simply survey the attitudes by giving a questionnaire. Therefore, choosing an appropriate design is very important as it will lead to a valid and reliable result of the study. As for this study, the two-way Analysis of Variance (ANOVA) design or two-way factorial design will be used. The researcher chose to use this type of research design because this study involves two variables (listening abilities and listening supports) with two and three levels respectively as given in the table below. The use of ANOVA allows the researcher to investigate the following effects:

- The effect of Question Preview (QP) on listening performance
- The effect of Vocabulary Preview (VP) on listening performance
- The effect of Repeated Input (RI) on listening performance (ELP-Test)

Table 3.1: Research Design

Listening supports / **Levels of English Ability**	**Question Preview** QP(A1)	**Vocabulary Preview** VP (A2)	**Repeated Input** RI (A3)
High Ability (B1)	N=30	N=30	N=30
Low Ability (B2)	N=30	N=30	N=30

3.2 Population and Sample

The population of this study was 1,629 first-year undergraduate students who enrolled in LNG 102 Fundamental English Course in semester 2 of the academic year 2010. Their demographic variables are as follows:

- They have completed LNG 101 in the first semester of academic year 2010.
- Their ages range from 17-19 years.
- They have taken English for at least 12 years.
- They are all native Thai.

The participants were selected using the stratified random sampling technique and they were divided into three groups for each ability level, i.e. the students were divided into two levels of language ability based on their grades from the previous fundamental English course (LNG 101 General English), in which listening accounted for 10% of their total marks. The high English ability group was the students who received grades A or B+, and the low ability group was those who received C+ or lower. Figure 3.1 illustrates how the sample of the study was obtained. Finally, the participants in this study were 180 students from three faculties, namely the Faculty of Engineering, the Faculty of Science and the

Faculty of Industrial Education and Technology, at King Mongkut's University of Technology in semester 2 of the academic year 2010.

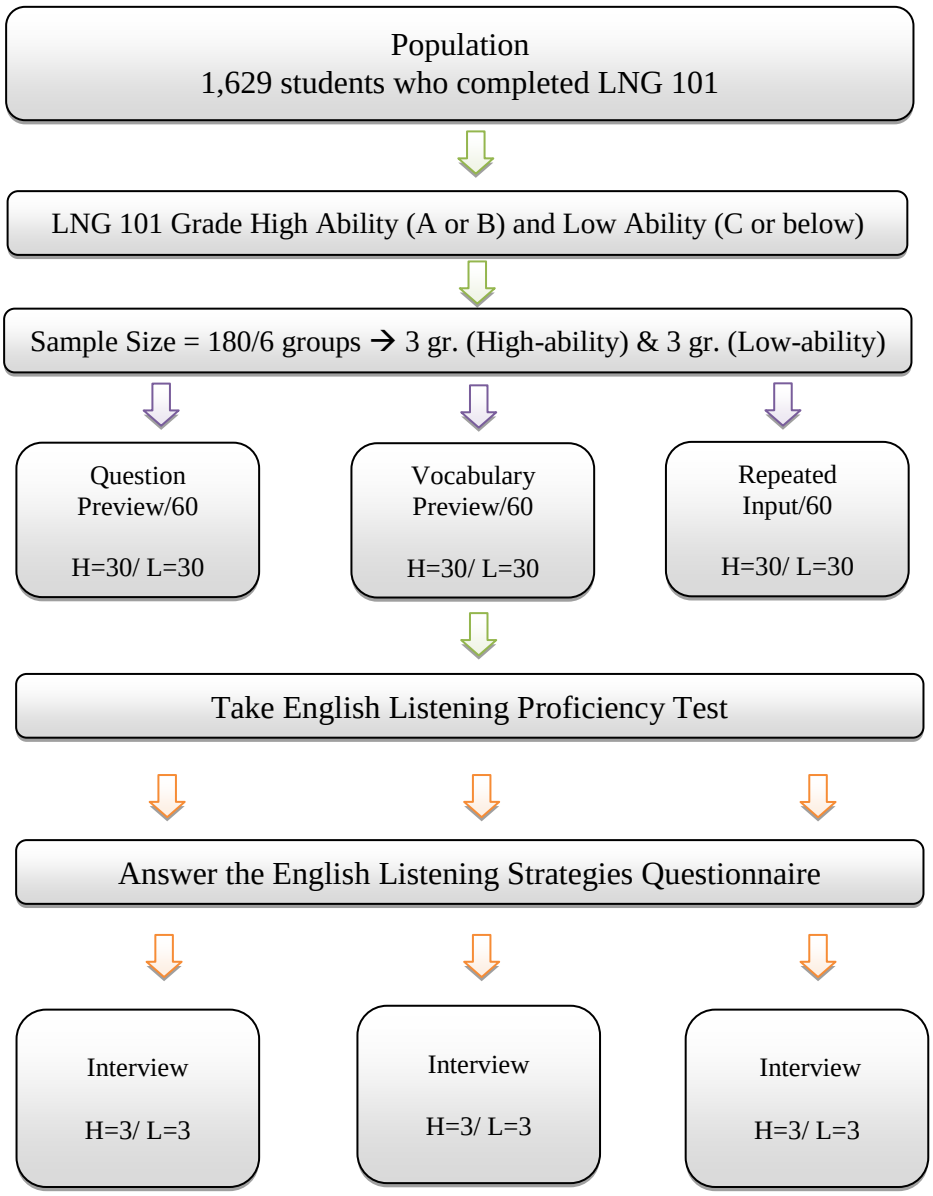

Figure 3.1: Population and sample of the study

3.3 Research Instruments

The three research instruments used in this study are: the English Language Proficiency Test (See Appendix A for test specifications), a questionnaire, and a retrospective interview. This section includes the development of each instrument and the validation process of each instrument.

3.3.1 ELP-Test

The ELP-Test was designed as an instrument for this study, i.e. it was designed by including the listening supports (independent variables). However, systematic test development was still essential. Therefore, in order to first develop the test, the listening constructs needed to be identified and selected to be included in the test.

The development of the English Listening Proficiency Test

In this study, the listening constructs proposed by Weir (1993) as well as the constructs of the listening section of four standardized tests, namely TOEFL, TOEIC, IELTS, and FCE, were examined. As a result, the listening constructs of the ELP-Test consisted of two major areas: 1) direct meaning comprehension and 2) inferred meaning comprehension; these are the most common listening abilities to be assessed and are found in standardized tests.

Test Validation and Item Analysis

After the ELP-Test was developed, it was validated to find the Item-Objective Congruency Index (IOC) by three experts in the field of language testing. They were English instructors who had experience in designing English tests for more than 10 years (See Appendix B for a validation form and the first draft version of the ELP-Test). Apart from validating the listening constructs and topics that the test measured, the experts also gave valuable comments for further

revision. The mean score of each item was calculated and the test items were revised accordingly.

Item Analysis

After the pilot study with 30 students drawn from the population in the academic year 2010, the test was analyzed to find Item Difficulty Index and Item discrimination Index.

Item Difficulty Index

The item difficulty index is a statistical analysis to discriminate between the test takers who could correctly answer test items. The result ranges from 0.0 to 1.0. A higher level indicates that the number of test takers who could answer the question correctly is more than those who could not, which means that the item is an easy item. The recommended score of item difficulty index is between 0.30-0.70 (Brown, 2005). Therefore, some of the items that were not within this range were discarded and some items that had the IF valued between .80-.90 were revised to maintain the acceptable number of test items (30 items) for the final ELP-Test.

Item Discrimination Index

The item discrimination index was analyzed to see how well an item is able to separate more proficient students from the less proficient. The recommended discrimination index value is .20 or more (Brown, 2005). Therefore, the items that had the Item Discrimination value below .20 were discarded.

Item Revision

After the pilot study and item analysis was computed, the revision of the items was carried out. The test used in the pilot study consisted of 40 items,

allowing 10 items to be deleted to arrive at the final 30 items in the main study. The criteria used in considering which item was to be discarded are:

1. Items which are too easy or too difficult; as a result, items 2, 7, 8, 9, 10, 11, 15, 34 and 35 were deleted.
2. Items with no or a negative discriminating index were to be discarded; therefore, items 7, 15, 34, and 35 were deleted.

Table 3.2 summarized the constructs of the ELP-Test as included in the final version of the ELP-Test.

Table 3.2: The Listening Constructs and the items in the ELP-Test

Listening Constructs	**No. of items**
1. Direct Meaning comprehension	
1.1 Listening for gist and main ideas	1, 7, 15, 20, 25
1.2 Listening for specific information	2, 3, 9, 10, 13, 14, 16, 18, 22, 23, 24, 26, 27, 28, 29
1.3 Determining speakers' attitudes towards the topic obvious from the text	4, 10, 17, 19, 21, 30
2. **Inferred meaning comprehension**	
2.1 Making inferences and deductions based on information in the text	5, 6, 8, 12

The questions for the ELP-Test were created by the researcher and the test contains 30 items and is divided into three parts. There are 12 items in the first part, 7 items in the second part and 11 items in the third part. The test format is

multiple choices with a fixed time allotment (See Appendix C for the ELP-Test and Appendix D for the tape script).

Moreover, from the informal interview with 10 participants in the pilot study, it was also found that the speed of the listening test was quite slow, especially for the high ability group. Therefore, the speed of the listening test was modified to be faster in the main study. In addition, since the majority of the deleted items were in Part I, conversation 2 of the test, therefore, there were only two conversations in part one, instead of three conversations as in the pilot study. After the revision of the test items, the final version of the ELP-test was obtained.

Listening Supports

The listening supports in this study are operationalized as a way the listening test was administered, i.e. the ELP-Test was administered in three different conditions:

A. Question Preview

The question preview in this study refers to as a treatment that the researcher provided the test questions (See Appendix E) before the actual test taking time. They are in a sheet separated from the actual test paper. Regarding these supports, even though all three groups could see the questions, the difference lies in the time given. The students in this group were given 15 minutes to read the questions and they were allowed to write anything on the paper. This is to allow the students to familiarize themselves with and understand the test content.

B. Vocabulary Preview

In order to get a list of the vocabulary, 30 students from the pilot study (15 from the lower group and 15 from the upper group) with the same demographic

information were asked to read scripts and circle the vocabulary that they did not know or they were not sure what the meanings were. Then, the researcher selected the words that appeared most frequently as words to be included in the vocabulary list provided to the test takers (See Appendix F). The vocabulary list is in a sheet separated from the actual test paper. The subjects were given 15 minutes to read the vocabulary and they were allowed to write anything on the paper. In providing vocabulary support, difficult words listed by 20 students from both ability groups (10 from the high ability group and 10 students from the low ability one) were simplified before being given to the students in the main study. In this study, translation of vocabulary in the listening text was not employed because it was set as a testing situation.

C. Repeated Input

Unlike the previous two types of supports, this support was defined as the opportunity for the test takers to listen to the listening test twice. In the previous two types of listening supports, the test takers only listened to the test once in order to see the effect of repetition between listening once and twice. The intent is to see the effect of repetition between listening once and twice. Bern's study in 1995 showed that repetition had positive influence on learners. However, repetition might not be too much in number as suggested by Chung's (2002) study that even though repetition is important, students got higher scores when they listened to the listening text twice, rather than three times. Therefore, in this study the opportunity to listen to the listening text was employed.

3.3.2 English Listening Strategies Questionnaire

The English Listening Strategies Questionnaire (ELSQ) was developed to examine the listening strategies the students used before, during and after taking the listening test. The questions in the questionnaire were created from the descriptions of listening strategies and tactics proposed by Vandergrift (1997) and Goh (2002), which overlapped in many categories. The proposed frameworks of these two scholars were combined to produce the listening strategies questionnaire

in this study (See Appendix G). The questionnaire is divided into three parts: the "before listening" strategies, the "during listening" strategies and the "after listening" strategies. Each part includes statements to see how students rate their listening strategy use. Each statement was written by the researcher based on the description of each strategy and validated by three experts. The "before" listening part is composed of 5 items, the "during listening" consists of 20 items, and the "after listening" has 3 items. Table 3.3 shows the categories of the observed strategies.

Table 3.3: Categories of English Listening Strategies Questionnaire

English Listening Strategies	**Sub-strategies**	**Questions**
Before taking the test:		
Metacognitive strategies	Advanced organization	Question item 1
	Selective attention	Question item 2
	Directed attention	Question item 3
Cognitive strategies	Prediction	Question item 4
Affective strategies	Lower anxiety	Question item 5
During the test taking:		
Metacognitive strategies	Directed attention	Question item 21
	Selective attention	Question items 6, 7, 8, 9
	Comprehension monitoring	Question items 23, 24, 25
Cognitive strategies	Inferencing	Question items 10, 11, 12
	Elaboration	Question items 13, 14, 15, 16

Table 3.3 (continued) Categories of English Listening Strategies Questionnaire

Cognitive strategies	Translation	Question item 17
	Repetition	Question item 18
	Note-taking	Question item 19
	Visualization	Question item 20
Affective strategies	Positive talk	Question item 22
After taking the test:		
Metacognitive strategies	Evaluation	Question item 26
Affective strategies	Problem identification	Question item 27
	Positive talk	Question item 28

Validation of English Listening Strategies Questionnaire (ELSQ)

The ELSQ was written in both Thai and English and was validated by three experts to find their consensus (See Appendix H). They were English instructors who had experience in teaching learning strategies for more than 10 years. The mean scores from the experts were calculated and the items which did not score between 0.50 and 1.00 were revised according to the experts' suggestions. The result from the experts' validation indicated that items no. 3, 9 and 23 should be revised. Consequently, the English listening strategy questionnaire was revised according to these comments. See Appendix I (English version) and Appendix J (Thai version).

Pilot study

The Thai version of the ELSQ was pilot tested with thirty first year students from the Faculty of Science and the Faculty of Industrial Education and Technology who had similar characteristics to the samples in the main study. The Cronbach's alpha internal consistency was used to estimate its reliability and the value of Cronbach's alpha from the pilot was .875 which is in the recommended range of reliability level of the questionnaire (ศิลป์จารุ, 2551). Consequently, this English Listening Strategies Questionnaire could be used in the main study.

3.3.3 Semi-structured Retrospective Interview

The semi-structured interview was conducted after the participants had taken the English Listening Proficiency Test in order to triangulate with the findings obtained from the English Listening Strategies Questionnaire. The results from the analyses of the English Listening Strategies Questionnaire and the semi-structured interview were used for the triangulation purpose. The questions for the retrospective interview were validated by three experts to find their consensus (See Appendix K). They were English instructors who had experience in teaching learning strategies for more than 10 years.

Similarly to the questionnaire, the mean scores from the experts were calculated and the items which did not score between 0.50 and 1.00 were revised according to the experts' suggestions. The result from the analysis indicated that none of the items needed to be revised (See Appendix L (English version) and Appendix M (Thai version). The data from the interviews were recorded, coded, quantified and presented in the form of frequency. Table 3.4 shows examples of interviews' response analysis

Table 3.4: Examples of Interviews' Response Analysis

Question	Descriptions	Example of Interview Responses	Frequency
Before listening test: 1. Do you plan how you are going to do the listening test? If yes, what do you usually do before listening?	**M**etacognitive: **S**elective **a**ttention: Deciding to attend specific aspects of the listening input	Subject 1: I read the questions **{MSa}**, so I can relate to when I listen to the recording. Subject 10 - "I don't usually plan. I just read the questions **{ MSa}**and focus on the words I don't know" Subject 18: - I normally read the test first **{MSa}**, and then try to summarize what the test about?	
During test taking: 7. Do you take notes while listening? Why and, how? In Thai or in English?	**C**ognitive: **N**ote-**t**aking : writing down keywords to assist performance of the listening task	Subject 7: - "I don't take notes**.** I may highlight, or circle keywords. That's all. {No} Subject 12: - I sometimes take note **{CNt}** in Thai, words level.	

Table 3.4 (continued) : Examples of Interviews' Response Analysis

After test taking: 12. What do you do after you've finished the test	**Affective Strategies: Using Positive Talk:** Providing personal motivation through positive talk	Subject 18: "I just think I can do it or not that's it." **{A-Pt}**	

CODE: **MSa**= Metacognitive strategies: selective attention

CNt = Cognitive strategies: note-taking

ATt = Affective Strategies: using positive Talk

3.4 Data Collection

According to the research design, there were three conditions that each ability group would undergo in a different sequence: Condition 1: Question Preview (QP), Condition 2: Vocabulary Preview (VP) and Condition 3: Repeated Input (RI). Each condition took about 30-40 minutes, including test taking and questionnaire completion. Each condition was conducted in a computer room at KMUTT and the participants listened to the test using headphones. The test administration was conducted in February 2011.

3.4.1 Procedure of Condition 1: (Question Preview)

In this condition, first, students were given questions of the listening test in advance before the test taking. They were given 10 minutes and were allowed to write any information that they thought would be the answers to the questions. These questions were aimed to activate the topical knowledge of the students. Then, they were given the ELP-Test paper. Time allotment was based on the time of the listening text. Immediately after they completed the ELP-Test, students completed the questionnaire. The last procedure in collecting the data was that three students from each ability group were randomly selected for a retrospective interview. The interviews were recorded and transcribed later for content analysis.

3.4.2 Procedure of Condition 2: (Vocabulary Preview)

In this condition, first, students were given a list of vocabulary of the listening test, as a vocabulary preparation for them. They were given 10 minutes and were allowed to write any information such as Thai meaning of words. These vocabulary items were given in order to provide key vocabulary items for students. Then, they were given the ELP-test paper. Time allotment was based on the time of the listening text (12 minutes plus pause time). Immediately after they completed the ELP-Test, the students completed the questionnaire. The last procedure in collecting the data was that three students from each ability group

were randomly selected for a retrospective interview. The interviews were recorded and transcribed later for content analysis.

3.4.3 Procedure of condition 3: (Repeated Input)

Unlike the two previous conditions, the listening support was the frequency of listening input, i.e. in the previous two conditions students were allowed to listen to the listening test only once, but in this condition the students listened to the listening texts twice. Immediately after they completed the ELP-Test, they completed the questionnaire. The last procedure in collecting the data was that three students from each ability group were randomly selected for a retrospective interview. The interviews were recorded and transcribed later for content analysis. Table 3.5 illustrates the research procedures of this study.

Table 3.4: Research Procedures

Question Preview	**Vocabulary Preview**	**Repeated input**
Question Preview (15 mins given to read the provided information)	Vocabulary Preview (15 mins given to read the provided information)	
Listen to the test	***Listen to the test***	***Listen to the test***
Answer the test questions	Answer the test questions	Answer the test questions
		Listen to the test(2nd time)
Complete the questionnaire	Complete the questionnaire	Complete the questionnaire
The participants were interviewed	The participants were interviewed	The participants were interviewed

3.5 Data Analysis

Data in this study were analyzed both quantitatively and qualitatively. Quantitative data analyses were computed on the Statistical Package for the Social Sciences (SPSS) version 17 for Windows. To answer the research questions, the following analyses were employed

1. The first research question is, "Do different types of listening supports have a significant effect on students' listening performance? If yes, to what extent is the effect size?"

   In response to Research Question 1, a two-way ANOVA was carried out concerning the main effect of listening supports. Also, partial Eta was computed to measure the effect size.

2. The second question is, "Do different levels of English ability have an effect on students' listening performance? If yes, what is the effect size?"

   To answer this research question, a two-way ANOVA was carried out concerning the main effect of language ability. Also, partial Eta was computed to measure the effect size.

3. The third question asks, "Is there an interaction effect between listening supports and English ability?

   In response to this research question, a two-way ANOVA was carried out concerning the interaction effect of listening supports and English ability level. Also, partial Eta was computed to measure the effect size.

4. The last question is, "What listening strategies do the students use when they do a listening test?

   Two research instruments were used to collect data to answer this research question. The data from the questionnaire were analyzed

using descriptive statistics i.e. mean scores and standard deviations. The data from the interview were coded by the researcher. The two sets of data were triangulated to yield valid and reliable conclusions.

Summary of the Chapter

This chapter shows the methodology of the study, research instrument, procedures for data collection, the pilot study, and data analysis. The findings of the study will be presented in the subsequent chapter.

CHAPTER 4

RESULTS

This chapter presents the findings of this study. With the data quantitatively and qualitative analyzed, the four research questions posed in this study are answered. Data are presented based on the four main research questions as follows:

1. With regard to the first research question "Do different types of listening supports have a significant effect on students' listening performance? If yes, to what extent is the effect size?

   In response to research question 1, a two-way ANOVA was carried out concerning the main effect of listening supports and the post hoc Scheffe test was used to see which listening support was more effective. Also, Partial Eta was computed to measure effect size of the listening supports.

2. The second question was "Do different levels of English ability have an effect on students' listening performance? If yes, what is the effect size?

   To answer this research question, a two-way ANOVA was carried out concerning the main effect of language ability. Also, partial Eta was computed to measure effect size.

3. Is there any interaction effect between listening supports and English ability?

   In response to this research question, a two-way ANOVA was carried out concerning the main effect of listening supports. Also, partial Eta was computed to measure effect size.

4. What listening strategies do the students use when they do a listening test?

In response to this research question, data from the questionnaire were analyzed using descriptive statistics i.e. mean score and the data from the interview were analyzed using content analysis in the form of frequency. The two sets of data were triangulated.

4.1 Results of Research Question 1

Research question 1—Do different types of listening supports have a significant effect on students' listening performance? If yes, to what extent is the effect size?

Hypothesis 1: Different types of listening supports significantly affect students' listening performance. ($\bar{x}_{QP} \neq \bar{x}_{VP} \neq \bar{x}_{RI}$)

QP = Question Preview

VP = Vocabulary Preview

RI = Repeated Input

This research question explores the effect of listening supports by examining the scores obtained from the English Listening Proficiency Test (ELP-Test). Both factorial ANOVA and one-way ANOVA were employed in the quantitative analysis. This study is a 2x3 design, with two levels of English ability, namely High Ability Student (HAS) and Low Ability Student (LAS) on the ELP-Test, and three different forms of listening supports, namely Question Preview (QP), Vocabulary Preview (VP), and Repeated Input (RI). Based on the Statistical Package for the Social Sciences (SPSS) version 17, the statistical analysis of the effects of listening supports was carried out. Table 4.1 shows the descriptive statistics, the mean score and the standard deviation of ELP-Test scores performed by the three groups of students.

Table 4.1: Descriptive Statistics of the Scores of Different Listening Supports

Listening Supports	**Level of English ability**	**N**	**Mean**	**SD.**
Question Preview *(QP)*	High Ability Student	30	15.13	3.58
	Low Ability Student	30	13.67	3.35
	All	60	14.40	3.51
Vocabulary Preview *(VP)*	High Ability Student	30	14.77	3.20
	Low Ability Student	30	12.03	3.20
	All	60	13.40	3.46
Repeated Input *(RI)*	High Ability Student	30	17.63	2.41
	Low Ability Student	30	14.03	3.86
	All	60	15.83	3.67
Total		180	14.54	3.66

*$p \leq 0.05$

As shown in Table 4.1, the mean of all subjects is 14.54, which is just slightly below half of the full score. With regards to the score of each listening support, the descriptive statistics are as follows: The students' score with the Repeated Input setting is the highest (mean=15.83), which is higher than 50% of the total score and is higher than the mean of all subjects, followed by the score of the group of subjects from the Question Preview group (mean =14.40), and the lowest score comes from the students in the Vocabulary Preview group (mean=13.40). The result shows that in a testing situation, Repeated Input is the

most effective listening test support for both groups of students and Vocabulary Preview is the least helpful for all students.

Moreover, to examine the effect of listening supports on the performance of these students, a Two-way ANOVA was performed as shown in Table 4.2. The listening supports significantly affected the listening performance of the students ($F=7.120$, $p \leq 0.05$). After the main effect was determined, it is also important to consider the magnitude of that effect. Based on the Partial Eta^2 statistical analysis, the results reveal that even though there is a significant effect of listening supports on the listening performance of students, the effect size of the listening supports was .087, which suggests that the magnitude was small (Cohen, 1988). This indicates that the listening performance of the university students is influenced by the listening supports, but only in a small magnitude. In other words, the three types of listening supports might not be helpful and reflect each student's listening performance.

Table 4.2 Main and Interaction Effects between Listening Supports and English Ability Levels

Variable	**SS**	**df**	**MS**	**F**	**Sig.**	**Partial Eta square**
(A) Listening supports	82.178	2	41.09	3.525	.032	.087
(B) English Ability	168.20	1	168.20	14.43	.000	.138
A*B	66.53	2	33.27	2.85	.060	.018
Error	2028.40	174	11.66			

*p<0.05

Furthermore, to examine which of the listening supports was helpful to the students, the post hoc test (Scheffe) was performed as shown in Table 4.3; the results indicate that there was a significant difference between the performances of the students from the Vocabulary Preview (VP) and Repeated Input (RI) groups ($p < .05$) with a mean difference of -.2.4333. Therefore, Repeated Input is more helpful for the students than Vocabulary Preview.

However, there is no significant difference between the students from Question Preview (QP) and Vocabulary Preview (VP) groups, and between the students from Question Preview (QP) and Repeated Input (RI) groups. Therefore, since the mean is not significant, it cannot be concluded which type among these listening supports is more helpful than the others. In other words, we cannot say that Question Preview is better than Vocabulary Preview or Question Preview is better than Repeated Input.

Table 4.3: Post hoc Comparison on the Effects of Listening Supports

	(I) Listening support	(J) Listening support	Mean Difference (I-J)	Std. Error	Sig.
Scheffe	QP	VP	1.0000	.60210	.255
		RI	-1.4333	.60210	.062
	VP	QP	-1.0000	.60210	.255
		RI	-2.4333*	.60210	.000
	RI	QP	1.4333	.60210	.062
		VP	2.4333*	.60210	.000

*. The mean difference is significant at the 0.05 level.

4.2 Results of Research Question 2

Research question 2*—Do different levels of English ability have an effect on students' listening performance? If yes, what is the effect size?*

Hypothesis 2*: Different levels of English ability have an effect on the Students' listening performance. ($\bar{x}_H \neq \bar{x}_L$)*

H = High Ability Students; L = Low Ability Students

This research question aimed to examine whether the level of English ability, based on their academic results from their previous English course, affected the listening performance of Thai first year university students at King Mongkut's University of Technology Thonburi. Due to the difficulties occurred during the main study, the subjects' English ability was categorized based on their grades from the previous English Fundamental Course (LNG 101) in the first semester, in which listening accounted for 10% of their total marks.

Table 4.2 shows the statistical analysis of the ELP-Test scores obtained by the two groups of English ability levels. As expected, the result indicated that levels of English ability significantly affected the listening performance of the students *($F= 25.706$, $p \leq 0.05$)*. Despite the fact that the levels of English ability significantly affected the listening performance of the subjects, the effect size was only .138, which suggests that it effect size was small (Cohen, 1988), but it is larger than the effect of listening supports. In other words, the overall English ability level of the students might not reflect the level of listening proficiency of each individual.

Table 4.4: Post hoc Comparison on the Effects of English Ability Levels

	(I) LS	(J) LS	Mean Difference (I-J)	Std. Error	Sig.
HAS	QP	VP	.36667	.80124	.901
		RI	-2.50000*	.80124	.010
	VP	QP	-.36667	.80124	.901
		RI	-2.86667*	.80124	.003
	RI	QP	2.50000*	.80124	.010
		VP	2.86667*	.80124	.003
LAS	QP	VP	1.63333	.89896	.198
		RI	-.36667	.89896	.920
	VP	QP	-1.63333	.89896	.198
		RI	-2.00000	.89896	.090
	RI	QP	.36667	.89896	.920
		VP	2.00000	.89896	.090

Furthermore, to examine which of the listening supports was more helpful in relation to the level of English ability, the Post hoc Scheffe test was performed as shown in Table 4.4. Firstly, in the high ability group, the result shows that there is a significant difference of test scores between the students from the Question

Preview (QP) and from the Repeated Input (RI) ($p < .05$) with the mean difference being -.2.50000. Therefore, Repeated Input is more helpful for the students than Question Preview. Also, a significant difference was found between the students from Vocabulary Preview (VP) and Repeated Input (RI); therefore, it can be concluded that for high ability students Repeated Input is more helpful than Vocabulary Preview. In short, among high ability students Repeated Input is the most helpful form of listening support during listening test taking.

As for the low ability students, the Post hoc test indicated that there is no significant difference between any of the pairs tested. Therefore, it can be concluded that there is no listening support which is more helpful than the others. In other words, the three listening supports tested in this study equally affected the performance of the students.

4.3 Results of Research Question 3

Research question 3: Is there any interaction effect between listening supports and English ability?

Hypothesis 3: There is a significant interaction effect between listening supports and English ability at 0.05 level.

To respond to this research question, a two-way ANOVA was employed to see whether there was any significant difference in listening performance for the listening supports and language ability level, and to determine if an interaction existed. As shown, Figure 4.1 reveals that there were significant main effects for listening supports and English *ability (F= 3.525, p=<.05)* and just English ability *(F = 14.442, P= <0.005).* Therefore, even though reported earlier that the main effect indicated that listening supports and the level of English ability significantly affected the students' listening performance, the interaction effect between these two main effects was not significant *(F= 2.85, P=>.05).*

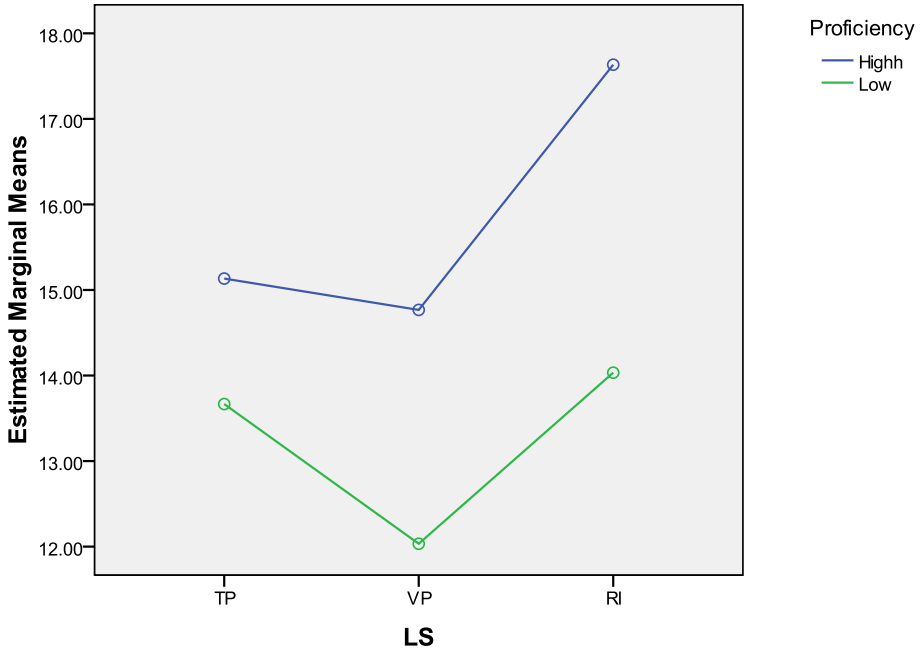

Figure 4.1: The Interaction effect between listening supports and English ability levels

In short, the effects of the level of English ability and the three types of listening supports on the listening performance of the students are parallel, but no interaction effect was found. Figure 4.1 illustrates no significant interaction effect between the two variables. Therefore, the third research hypothesis was rejected.

4.4 Results of Research Question 4

Research Question 4: What listening strategies do the students use when they do a listening test?

Research question 4 explores the use of listening strategies of the subjects. Two research instruments were used to collect data both quantitatively and qualitatively, namely the English Listening Strategies Questionnaire (ELSQ) and the retrospective interview to triangulate with the data obtained from the

questionnaire. The English Listening Strategies Questionnaire (ELSQ) includes 28 strategies with a self-reported 5-point Likert scale: *1= I never or almost never do this, 2= I seldom do this, 3= I sometimes do this, 4 = I usually do this, and 5= I always do this*. It is designed to identify the students' English listening strategies specifically in a testing situation.

Semi-structured retrospective interviews were conducted to elicit information about the subjects' listening strategy use at each stage of test taking for triangulating with the quantitative data. Three volunteer students from each group were interviewed after they took the ELP-Test. Hence, there were 18 participants in the interviews. Based on the research questions, the participants for the interview were categorized as high ability students (HAS,) named S1-S9 and low ability students (LAS), named S10-18. The interviews were conducted in Thai to ensure that the students could express their strategy use thoroughly. The interviews lasted between 10-12 minutes, depending on each student's responses and follow-up questions. However, most are quite short; this may be the results of the nature of the question posed and students' nature. The researcher used guided interview questions such as *"นักศึกษาได้มีการวางแผนบ้างหรือไม่ก่อนทำแบบทดสอบการฟัง ถ้าทำ ทำอะไร"* (Do you plan how you are going to do the listening test? If yes, what do you usually do before listening?")

The interview was conducted based on the interview questions prepared by the researcher and with follow-up questions in case further explanation was required. The interview was conducted in a prepared room using an MP3 player to record the responses. The data from the interview were transcribed.

Table 4.5 outlines the questions in the questionnaire items that were intended to elicit information about English listening strategies and sub-strategies in relation to each phase of listening test taking.

Table 4.5: English Listening Strategies and Sub-strategies as well as the Question and Interview Items Grouped according to Specific English Listening Strategies.

English Listening Strategies	Sub-strategies	Questions
Before taking a test:		
Metacognitive strategies	Advance organization	Question item 1
	Selective attention	Question item 2
	Directed attention	Question item 3
Cognitive strategies	Prediction	Question item 4
Affective strategies	Lower anxiety	Question item 5
During test taking:		
Metacognitive strategies	Directed attention	Question item 21
	Selective attention	Question items 6, 7, 8, 9
	Comprehension Monitoring	Question items 23, 24, 25
Cognitive strategies	Inferencing	Question items 10, 11, 12
	Elaboration	Question items 13, 14, 15, 16
	Translation	Question item 17
	Repetition	Question item 18
	Note-taking	Question item 19

Table 4.5 (continued): English Listening Strategies and Sub-strategies as well as the Question and Interview Items Grouped according to Specific English Listening Strategies

	Visualization	Question item 20
Affective strategies	**Positive talk**	Question item 22
After taking a test:		
Metacognitive strategies	**Evaluation**	Question item 26
Affective strategies	**Problem identification**	Question item 27
	Positive talk	Question item 28

It can be seen from Table 4.5 that this study investigated English listening strategies and sub-strategies that students used before, during and after listening to the test. The results for this research question are presented in three aspects as follows: frequency of listening strategies use, listening strategies use in three stages of test taking, and comparison between high ability and low ability students. The data obtained from the questionnaire were presented first, and then the qualitative data from the interview were used to give additional data regarding the used strategies.

4.5.1 Analysis of English Listening Strategies Frequently Used

The data from the questionnaire were analyzed using descriptive statistics in order to show the frequency of listening strategies the students used in the process of listening test taking. The subjects' questionnaires of 28 listening strategic items were analyzed, and the results are given in Table 4.6 which

provides the mean score of each listening strategic item. According to Oxford (1990), the strategies holding the mean over 3.5 were considered as strategies with high frequency use whereas the strategies with the mean lower than 2.4 were regarded as strategies with low frequency use. As for this study, the mean score of the five-point scale for each question item in the questionnaire was interpreted as follows:

- 3.50-5.00 means high frequently used strategies
- 2.50-3.49 means medium frequently used strategies
- 1.00-2.49 means low frequently used strategies

Table 4.6 below shows the means and the standard deviations of listening strategies from the questionnaire that the students reported. .

Table 4.6: Means and Standard Deviation of English Listening Strategies Used

Item	**Listening Strategies**	**Mean**	**SD**
1.	I clarify the objectives of the listening task and make sure of what I have to do e.g. read the instructions of the test.	3.56	.26
2.	I scan the questions, and then listen to the specific information to answer them.	**3.82**	**.27**
3.	I concentrate my mind on the listening text.	**3.93**	**.30**
4.	I predict the content of the test from the test questions.	**3.77**	**.20**
5.	Before taking the test I tell myself to relax.	3.42	.29
6	I listen to words in a group or sentences.	3.37	0.25

Table 4.6 (continued): Means and Standard Deviation of English Listening Strategies Used

7	I listen to the general idea to understand the listening test.	**3.82**	**0.33**
8	I listen to every detail I hear.	3.67	0.20
9	I pay attention to repeated words.	3.67	0.23
10	I think of what I've already known about the listening topic.	3.25	0.45
11	I guess the meaning of new words using known words from the listening text.	3.33	0.19
12	I relate new words to the known words and use them to understand the listening text.	3.13	0.12
13	I use my knowledge of English to understand the listening text.	2.98	0.29
14	I use my knowledge about English grammar to understand the listening text.	3.43	0.25
15	I relate new information to my own experience or knowledge.	3.40	0.32
16	I use my background knowledge about the topic to help me understand the text.	3.43	0.28
17	I try to translate words or sentences into Thai.	3.49	0.30
18	I repeat words or phrases softly to help me understand the words or phrases.	***2.74***	***0.12***
19	I write down some ideas or keywords as I listen.	***2.78***	***0.23***
20	I use mental pictures to understand the listening text.	3.23	0.23
21	I continue to listen despite listening difficulty.	3.47	0.18

Table 4.6 (continued): Means and Standard Deviation of English Listening Strategies Used

22	I reassure myself by telling myself "I'm right" or "I know this".	***2.85***	***0.11***
23	I ask myself what I have understood.	3.19	0.07
24	I always check whether the information is making sense to me.	3.21	0.13
25	I check my comprehension to see whether it is right or wrong.	3.32	0.29
26	I evaluate how much I could understand.	3.31	0.20
27	I think about my problems and difficulties.	3.60	0.22
28	I tell myself I did the best I could. "Don't worry about the results."	3.70	0.25

The results in Table 4.6 indicated that the students used a variety of listening strategies at high and medium level. Moreover, it can be seen that the five most employed listening strategies were "*I concentrate my mind on the listening text"* (item 3: Metacognitive strategies: directed attention); "*I scan the questions, and then listen to the specific information to answer them"* (item 2: Metacognitive strategies: selective attention); "*I listen to the general idea to understand the listening test*." (Item 7: Metacognitive: selective attention) and *I predict the content of the test from the test questions* (item 4: Cognitive strategies: prediction). All the means are more than 3.77.

On the other hand, the least frequently used strategies are "*I write down some ideas or keywords as I listen." (*item 19: Cognitive strategies: note-taking); "*I repeat words or phrases softly to help me understand the words or phrases"*. (item 18: Cognitive strategies: repetition); and "*I reassure myself by telling myself*

I'm right" or "I know this". (Item 22: Affective strategies: positive talk). The means are below 2.85.

To further investigate the listening strategies the students used when taking a listening test, and to minimize the drawbacks that might be caused by using the questionnaire only, a semi-structured interview was conducted. The interview in this study consists of 12 items to elicit the listening strategies the students used in three stages of test taking as previously shown in Table 4.6. The samples from the interview questions to triangulate with the data from the questionnaire are provided below. The data are presented according to each stage of listening test taking: before, during and after.

4.5.1.1 Strategies used before doing the ELP-Test

The listening strategies included in this part cover metacognitive strategies, cognitive strategies and affective strategies. Metacognitive listening strategies focused on planning, selective attention, and directed attention while cognitive strategies focused on prediction. The affective strategies focused on lower anxiety. Table 4.7 shows that the three most frequently used strategies by the students before taking the test are "*I concentrate my mind on the listening* text." (Metacognitive strategies: directed attention), followed by *"I scan the questions, and then listen to the specific information to answer them." (*Metacognitive strategies: directed attention) and "*I predict the content of the test from the test questions." (*Cognitive strategies: prediction).

Table 4.7: Means and Standard Deviations of Listening Strategies Used before Test Taking

Listening Strategies	*Mean*	*SD.*
Metacognitive strategies—Advanced organization I clarify the objectives of the listening task and make sure of what I have to do e.g. read the instructions of the test.	3.56	0.26
Metacognitive strategies—S elective attention I scan the questions, and then listen to the specific information to answer them.	3.82	0.27
Metacognitive strategies—Directed attention I concentrate my mind on the listening text.	3.93	0.30
Cognitive strategies—Prediction I predict the content of the test from the test questions.	3.77	0.20
Affective strategies—Lower anxiety Before taking the test I tell myself to relax.	3.42	0.29

A further investigation through the retrospective interview shows a similar trend, but it is not in the exact manner. The retrospective interview was conducted to examine the use of listening strategies of the subjects. Three students were from each group were randomly selected to take part in the interview. The interview was conducted in Thai and recorded. After that, it was transcribed, coded and analyzed.

The results indicate that all 18 participants (100 %) from the interviews when asked, “Do you plan how you are going to do the listening test? If yes, what do you usually do before listening?” (Interview question 1), indicated that they

looked at and read the questions before the listening recording was played. That is to say, the most frequently used listening strategy was “Selective attention”, which is the second most frequently used listening strategy reported from the questionnaire. Examples of some students’ responses from the subjects are given below to show that the subjects used the “selective attention” strategy the most before they took the listening test. Please note that the responses presented in the quotations are the original version that the students answered in Thai, the translated versions in the square brackets were translated by the researcher and the English language was grammatically corrected by a native speaker who is an experienced English teacher.

“อ่านคำถาม แล้วดูว่าจะเชื่อมกับสิ่งที่รู้อย่างไรตอนฟัง แล้วก็เดาว่ามันตรงกับชีวิตจริงหรือเปล่า ถ้ามีก็ลองตอบ แล้วก็เช็คอีกตอนฟัง”

[I read the questions, so I can relate them to what I hear when I listen to the recording and guess how it relates to my real life. I might guess those answers and check my guesses when I listen.]

(Subject 1)

“อ่านคำถาม แล้วก็คิดว่าคำถามเกี่ยวกับอะไร แล้วก็พยายามจับประเด็นตอนฟัง”

[I read the questions, and think of what kinds of questions they are. I try to get the main idea when I listen.]

(Subject 3)

“อ่านคำถาม คิดว่าคำถามเกี่ยวกับอะไร มักจะเน้นคำที่ไม่เข้าใจ แล้วก็โฟกัสตรงนั้น”

[I read the questions and think of what they are about and I always highlight words that I don’t understand, and I will focus on those.]

(Subject 5)

“อ่านคำถาม คิดว่าคำถามเกี่ยวกับอะไร พอตอนฟังก็ดู ที่ตัวเลือก”

[I read the questions, and think of what the questions are about, so when I listen I will look at the options.]

(Subject 7)

“ปกติก็อ่านคำถามก่อน แล้วก็พยายามสรุป ว่าข้อสอบเกี่ยวกับอะไร เช่น เทสนี้ถาม เกี่ยวกับ คาร์บอน ผมก็ฟังเฉพาะตัวเลข”

[I normally read the test first, and then try to summarize what the test is about. For example, the test I just took asked about carbon, so I focused on the number.]

(Subject 14)

“หนูก็อ่านคำถาม แล้วก็จับประเด็นสำคัญ”

[I read the questions and try to get the main important points.]

(Subject 16)

“อ่านคำถาม โดยเฉพาะข้างต้น กับท้าย คิดว่าอันนั้นสำคัญสุด”

[I read the questions, especially the beginning and the end of sentences. I think that is the most important thing.]

(Subject 17)

Moreover, two interviewees reported that they also planned what to listen for the first time and what to listen for the second time.

“อันนี้ จะฟัง 2 รอบ ก็เลยคิดว่าฟังครั้งแรก จะฟังภาพรวม พอรอบสอง จะฟังที่เค้าถาม ส่วนที่สำคัญ”

[This one I will listen to twice, so I plan that the first time I will listen for general information, and the second time I will listen for the specific things that are asked, the main important information.]

(Subject 15)

“ถ้าได้ฟังสองรอบ ครั้งแรกก็ฟังว่ามันเกี่ยวกับอะไร พอรอบสอง ก็ฟังเพื่อจะตอบ”

[If I can listen twice, the first time I normally listen just to know what it is about, and the second time I will listen to find the answers.]

(Subject 16—the subject was allowed to listen only once)

Therefore, it appears that metacognitive strategies are the dominant strategies that the students used before the stage of test taking. In addition, from the interviews, it also shows that the form of listening support such as repeated input may influence the planning of the students in doing the test.

4.5.1.2 Strategies used during the ELP-Test

The interview questions asked for the strategies the students used during the test and included five cognitive categories: inferences, elaboration, note-taking, translation, and imagery. The results from the questionnaire reveal that the

strategies the students normally used during taking the listening test were listening *"I listen to the general idea of the listening test"* (Metacognitive: selective attention), followed by "*I listen to every detail I hear"* (Metacognitive: selective attention), and "*I pay attention to repeated word"* (Cognitive: repetition). It is rather unusual to see that listening for general information and listening for details receive the same level. This may be caused by the fact that the test contains both the constructs of listening for gist and details. Therefore, the students reported to use them equally. Effectively, it could be said that the objectives of the test may dictate the use of the strategies. The following table illustrates the means and standard deviations of the listening strategies used when the students took the test.

Table 4.8: Means and Standard Deviations of Listening Strategies Used During Taking the test

Listening Strategies	***Mean***	***SD.***
Cognitive strategies: I listen to the general idea to understand the listening test.	**3.82**	**0.33**
I listen to every detail I hear.	3.67	0.20
I pay attention to repeated words.	3.67	0.23
I repeat words or phrases softly to help me understand the words or phrases.	***2.74***	***0.12***
I write down some ideas or keywords as I listen.	***2.78***	***0.23***
I reassure myself by telling myself "I'm right" or "I know this".	***2.85***	***0.11***

Table 4.8 shows that the least frequently used strategy was *"I repeat words or phrases softly to help me understand the words or phrases* closely" (Cognitive strategies: repetition) followed by *"I write down some ideas or keywords as I listen*" (Cognitive strategies: *note-taking).* The results from the questionnaire are similar to those from the interviews. The students hardly took

notes while listening to the test especially when they were allowed to listen only once as they stated that they had no time to do so. The results from the interviews are similar to those of the questionnaire. In fact, no interviewee reported that they used "repetition strategies" while listening. Similarly, 12 students (67%) reported they never took notes while listening. The reason was due to time constraints as they had no time to take notes; their focus was on completing the test. Below are some examples from the interviews showing the reasons why note-taking was the least frequently used strategy.

"ไม่จดครับ ไม่มีเวลา"

[I don't take notes; there is no time.]

(Subject 1)

"ไม่จดครับ แค่ฟังแล้วก็ตอบคำถาม"

[I don't take notes; I just listen to answer the questions.]

(Subject 2)

"ไม่ค่อยจด ไม่มีเวลา"

[I don't take notes; there's no time.]

(Subject 7)

However, there are three interviewees that reported they sometimes take notes and their reasons are shown below.

"บางครั้งก็จดคำภาษาไทยเพื่อเอาไว้เตือนเวลาตอบ"

[I sometimes write words in Thai to remind me when answering questions.]

(Subject 12)

“ปกติก็จดที่คิดว่าสำคัญ แล้วก็จดเป็นภาษาอังกฤษ เพราะถ้าจดภาษาไทยอาจจะเขียนผิด”

[I normally take notes on the points that I think are important. I normally write in English because I am afraid that if I write in Thai I might make mistakes.]

(Subject 15)

“บางครั้งก็จดความหมายภาษาไทย แล้วก็อังกฤษเพื่อช่วยเรื่องคำตอบ”

[I sometimes take notes both in Thai (meaning) and in English to remind me of the answers.]

(Subject 16)

4.5.1.3 Strategies used after doing the ELP-Test

The last stage was to investigate what the students actually did after they completed the test. The strategies in this part focused only on metacognitive strategies – evaluation and problem identification, and affective strategies. Table 4.9 shows the mean of each strategy. The results show that after completing the test the students used affective strategies more to evaluate themselves or to think about the problem. This may imply that the students thought they could do nothing else; therefore, they comforted themselves by telling that they did try their best and this is the most frequent strategy used. The table below shows the means and standard deviations of the listening strategies that the students used after taking the test.

Table 4.9: Means and Standard Deviation of Listening Strategies Used after Taking the Test

Listening *Strategies*	***Mean***	***SD.***
Metacognitive strategies: evaluation I evaluate how much I could understand.	3.31	0.20
Metacognitive strategies: problem identification I think about my problems and difficulties.	3.60	0.22
Affective strategies: positive talk I tell myself I did the best I could. Don't worry about the results.	3.70	0.25

Based on the means, both metacognitive and affective strategies were considered highly frequently used strategies. In fact, they actually used metacognitive strategies more than affective strategies. Based on the means, both metacognitive and affective strategies were considered highly frequently used strategies. However, further interviews show different information. The data from all 18 interviews pointed out that normally what they did the most was checking whether they have completed all items in the test, rather than checking if their answers were right or wrong. The results from the interviews indicate the students used metacognitive strategies the most. Below are some examples of interviews 'responses to the question, "What do you do after you've finished the test?"

"ดูว่าตอนแรกตอบอะไร แล้วรอบสองตอบเหมือนเดิมหรือเปล่า แล้วก็เลือก"

[I compare the first time and the second time to see if my answers should stay the same or not; if not, I will reconsider and make a final decision.]

(Subject 3)

“แค่ดูว่าตอบหมดทุกข้อหรือเปล่า ถ้ามียังไม่ได้ตอบก็เลือกเลย เพราะว่าไม่มีเวลาเช็คคำตอบแล้ว”

[I just check whether I have completed all the items. If there are items I am not sure of, I just make a quick decision, because I don’t have the listening text to verify my answer.]

(Subject 7)

“ส่วนใหญ่ก็ดูว่าตอบครบหรือเปล่า ไม่ค่อยได้คิดว่าจะได้คะแนนเท่าไหร่”

[I usually check whether I have completed every item or not, and guess how many marks I will get.]

(Subject 14)

“แล้วแต่เวลา ก็แค่เช็คว่าตอบครบหรือเปล่า แล้วก็จะผ่านหรือเปล่า”

It depends on time. Usually I just check to see if I have completed all the items, and guess whether I’ll pass or not.]

(Subject 12)

The following table compares the three most frequently used listening strategies that were reported by the high ability students and their lower and low ability counterparts

Table 4.10: Comparison between High and Low Ability Students' Use of the Three Most Frequent Listening Strategies

High Ability Students (90)		**Low Ability Students (90)**	
Strategies	**Means**	**Strategies**	**Means**
Metacognitive strategies: Directed attention I concentrate my mind on the listening text.	**3.93**	**Metacognitive strategies: Directed attention** I concentrate my mind on the listening text.	**3.72**
Metacognitive strategies: selective attention I scan the questions, and then listen to the specific information to answer them.	**3.82**	**Metacognitive strategies: selective attention** I pay attention to repeated words.	**3.63**
I listen to the general idea to understand the listening test.	**3.82**	**Cognitive strategies: prediction** I predict the content of the test from the test question to answer questions.	**3.60**

Table 4.10 indicates that the three most frequently used listening strategies of both groups are almost identical in order. For the high proficient group, the most frequently used listening strategy is *"I concentrate my mind on the listening text*" (Metacognitive: directed attention); the second and the third most frequently used also reveal similar results. The second most frequently used for the high ability students is "*I scan the questions, and then listen to the specific information to answer them."* (Metacognitive: selective attention) and the third one is "*I listen to the general idea to understand the listening test."* (Metacognitive: selective attention). The last strategy is followed by *"I predict the content of the test from the test questions."* with the same mean of 3.82.

For the low ability students, the most frequently used listening strategy is *"I concentrate my mind on the listening text."* (Metacognitive: directed attention). The second most frequently used for LPL is "*I pay attention to repeated words"* (cognitive strategies: repetition). The following table illustrates the comparison of the three least frequently used strategies used by the two groups.

Table 4.11: Comparison between High and Low Ability Students' Use of the Three Least Frequent Listening Strategies

High Ability Students (90)		**Low Ability Students (90)**	
Strategies	**Means**	**Strategies**	**Means**
Cognitive Strategies: repetition I repeat words or phrases softly to help me understand the words or phrases.	**2.81**	**Cognitive Strategies: repetition:** I repeat words or phrases softly to help me understand the words or phrases.	**2.67**
Affective strategies: I reassure myself by telling myself "I'm right" or "I know this".	**2.86**	**Cognitive Strategies: note-taking** I write down some ideas or keywords as I listen.	**2.67**
Cognitive Strategies: note-taking I write down some ideas or keywords as I listen.	2.88	**Cognitive Strategies: elaboration** I use my knowledge of English to understand the listening text	2.80
		Affective strategies: positive talk I reassure myself by telling myself "I'm right" or "I know this".	2.84

Regarding the least frequently used listening strategies, the results yield similar results were obtained. The least frequently used strategy for both groups of students is the same, i.e. "*I repeat words or phrases softly to help me understand the words or phrases".* (Cognitive strategies: repetition.) The low ability students also used two more least listening strategies; *"I write down some ideas or keywords as I listen."* (Cognitive strategies: note-taking) and *"I reassure myself by telling myself "I'm right" or "I know this."* (Affective strategies: positive talk), and *"I write down some ideas or keywords as I listen*." (Cognitive strategies: note-taking).

The reported least frequently used listening strategies of the low ability students are similar to those of the high proficient students, except for no. 2, "*I use my knowledge of English to understand the listening text."* (Item13: metacognitive strategies: linguistic elaboration). Though the two groups were very similar in their use of strategies (both the most and least frequently used), it can be seen that the low ability students try to get both general ideas and every detail. This indicates that the high ability and low ability students shared certain similarities in their use of strategies, but the differences lie in the frequency of use. In other words, the high ability students appeared to use strategies more frequently than the low ability ones.

4.6 Summary of the Results

4.6.1 Based on Research Question 1, listening supports significantly affected the listening performance of Thai first year students at King Mongkut's University of Technology Thonburi with the repeated input as the most effective listening support. However, statistical analysis indicates that the effect size of the listening support is small. In other words, in this study the listening performance of the students may not be influenced by the three selected listening supports.

4.6.2 In response to Research Question 2, the levels of English ability significantly affect the listening performance of Thai first year students at King Mongkut's University of Technology Thonburi and its effective size was small.

4.6.3 In response to Research Question 3, the statistical analysis indicates even though both main effects are significant, the interaction effect between English ability levels and listening supports is not significant.

4.6.4 Based on Research Question 4, Thai first year students at King Mongkut's University of Technology Thonburi used a variety of listening strategies when taking a listening test, based on comparing among the three stages of test taking. There is also a difference in the frequency of strategies used between the high and low ability students.

The next chapter will discuss the results, theoretical and pedagogical implications and recommendations for future research.

CHAPTER 5

DISCUSSIONS, IMPLICATIONS AND RECOMENDATIONS

This chapter describes the research summary and the findings of this study and discusses these findings in the context of relevant research. In addition, this chapter presents pedagogical implications for EFL programs and states the limitations that were raised based on these. Finally, this chapter presents recommendations for further research and conclusion.

5.1 Summary of the Findings

The experimental research aims to examine the effects of listening supports on the listening performance of Thai first year university students. This study was comprised of two aspects, first to explore the effects of listening supports on the listening performance of first year Thai university students, strictly speaking, in a listening testing setting. Also, the listening test taking strategies were examined to see the frequency of listening strategies that the students used at each stage of test taking: before, during and after taking the listening test. The study took place in the second semester of the academic year 2010. The participants (N=180) were first year, undergraduate students from various departments from the Faculty of Engineering and the Faculty of Science. All of them were Thai between 18-19 years old and they all completed the first fundamental course of the university. They were assigned into three different groups of listening supports (Question Preview, Vocabulary Preview, and Repeated Input) and each group was divided into two levels of English ability. There were thirty high English ability and thirty low English ability students in each group.

Initially, the criteria for the English ability levels were based on the KMUTT placement test, but due to the lack of a substantial number of participants, the students were later divided into two levels of language ability based on their grades from the previous English fundamental course (LNG 101).

The high language ability group was the students who received grades A or B+, and the low ability group was those who received C+ or lower from LNG 101 general English.

Three research instruments were employed: 1) English Listening Proficiency Test (ELP-Test), 2) English Listening Strategies Questionnaire, and 3) Semi-structured Retrospective Interview. In order to investigate the effect of the listening supports on the listening performance of Thai first year university students as well as the listening strategies used by the students, the study attempts to answer four research questions which are reiterated below.

1. Do different types of listening supports have a significant effect on students' listening performance? If yes, to what extent is the effect size?
2. Do different levels of English ability have an effect on students' listening performance? If yes, what is the effect size?
3. Is there an interaction effect between listening supports and English ability?
4. What listening test taking strategies do the students use when they do a listening test?

The researcher used a two-way ANOVA factorial design to examine the effect of listening supports on the listening performance of Thai first year students. Content analysis was employed to analyze the qualitative data. In brief, the major findings of this study are summarized as follows:

1. There is a significant effect of listening supports on the listening performance of the students. Repeated input appears to be the most

effective listening support for Thai first year students. However, the estimated effect size was at a small level.

2. The levels of language ability also significantly affected the students' listening performance, and its effect size was considered to be at a small scale.
3. Despite the fact that both main effects, listening supports and levels of proficiency, significantly affected the listening performance, there was no significant interaction effect between the two main variables.
4. The students used a variety of strategies when they do a listening test. The high ability students and the low ability used similar listening strategies, but the high ability used more frequently.

The findings of the study revealed that listening supports have some effects on the listening performance of Thai first year university students. This study showed that for Thai first year university students, repeated input was the most effective form of listening support. The finding also indicated that high proficient learners employed strategies more frequently than low proficient ones. It was found that the more strategies the students could employ, the more likely they would be effective listeners, hence improving their listening performance.

The findings of this study clarify some inconclusive results of previous studies on the effects of listening support. This study also adds some contributions to the understanding of the potential benefits and limitations of strategies used in doing listening tests by comparing the effects of three forms of listening supports, strictly speaking, in a test situation as well as the listening strategies that the students use when they perform a listening test. Both quantitative and qualitative results provided some information in the area of English listening comprehension and listening strategies of EFL students.

Despite the attempt to systematically carry out the investigation in an objective manner, there are some imitations in this study which are presented below.

First of all, the categorization of students into high and low language ability students from the grades they obtained from the previous English course might not be an ideal criterion. Second, the given listening supports in the testing situation might not be a practical procedure, although the result can be applied to the classroom setting in that repeated exposure can enhance students' listening performance. Furthermore, in the process of conducting the stimulated ELP-Test, the researcher had informed the participants that the results of the ELP-Test would not be a part of their assessment of the course they were taking. Because of this reason, it appeared that many participants were not fully concentrated on the test or the questionnaire. Last but not least, it is important to note that the findings reported here cannot be generalized to all Thai first year students with different proficiency levels.

5.2 Discussions

The findings yield discussion into three aspects: the listening supports on listening performance, levels of English ability and listening performance and , frequency of listening strategies used and listening strategies and levels of English ability.

5.2.1 Listening supports and Listening Performance

The results from this study revealed that listening supports significantly affected the listening performance of Thai first-year students at King Mongkut's University of Technology Thonburi who enrolled in the academic year 2010. Furthermore, it can be seen that different forms of listening supports have different effects on the performance of these first year students. In this study, Repeated Input is the most effective listening support for these students regardless of what level of language ability they have. The finding of this study is similar to

that of Chang and Read (2006) who conducted a study on the effect of four listening supports, previewing the test questions, repetition of the input, providing background knowledge about the topic, and vocabulary instruction, on the listening performance of EFL college students in Taiwan. The results showed that the most effective types of listening support were to provide background knowledge about the topic followed by repetition of input, which was the most effective listening support in this study.

As for the least helpful listening support, the finding from this study was also consistent with the result of Chang and Read (2006). That is, vocabulary instruction was the least effective listening support. Therefore, vocabulary preview does not seem to be effective for Thai first year university students despite the fact that not knowing vocabulary was claimed to be the factor that affects their listening performance. Osuka (2007) studied the effect of providing questions related to the main ideas in advance, slowing speech rates, supplying the meaning of important vocabulary words in advance, and providing background information about the topic in advance on 64 Japanese college students majoring in business administration at a private university in Tokyo. The results revealed that supplying the meaning of important vocabulary words in advance had no effect on the performance of the students.

Moreover, the result from the present study was consistent with the study of Elkakhafi (2005), which examined the effect of pre-listening activities and repeated listening exposure on listening comprehension of Arabic learners. The result showed that the subjects who received the question preview performed better than those who received vocabulary preview. Therefore, it can be seen that regarding the effect of listening supports of listening performance of students, the result was quite similar to previous studies, especially on the effect of vocabulary preview. The result may imply that knowing vocabulary as a written form might not be an adequate source to facilitate the listening ability. However, many aspects regarding what could affect the listening performance of students need

further investigation and more empirical studies on listening skills should be conducted.

Possible explanations for these results are as follows. Repeated Input is the most helpful listening support because it enables the students to check whether their answers are correct or not. As suggested by Hatch (1993 cited in Chang and Read 2006: 378), "repetition provides more processing time and clarifies the relationship of syntactic forms". As for the least helpful form of support, Vocabulary Review, this may be due to the fact that the students need more time to remember the words and meaning of the key words. Also, the vocabulary provided may be out of context; hence, the students could not process meaningfully when they listened. As suggested by Buck (2001 cited in Chang and Read, 2006:393), a "… listening test situation requires them to process the spoken form and meaning of the words very rapidly, if not automatically". Last but not least, another important explanation may stem from the fact that knowing the word itself is one thing, but its pronunciation in a listening text may be another issue.

Regarding the interaction effect, the result indicated that there was no interaction effect between the listening supports and the level of English ability. This means that whether or not the listening support is included, the performance of the students is not affected. This may be due to the fact that the criteria of categorizing the students were quite broad; therefore, if the selected criteria have more details like using listening scores or the scores from the auditory mode, the interaction effect might be accounted for.

Unlike several previous studies, these students strictly set the supports as a part of the test paper because the research did not explain in detail except for the clarification on the instructions of the test. Based on the first research question, there is a significant effect of listening supports on listening performance of the

students with listening input as the most effective listening support. The findings can be discussed addressing some key aspects as follows:

The findings of this present study share similar directions of those in previous studies. Concerning the three listening supports, the repetition group performed the best, followed by the question preview group, and the least effective support was the vocabulary preview group, but their differences were not significant.

The most effective listening support of this study was "repeated input", which is the listening support concerning the factors of the nature of input (Brindley and Slatyer, 2002). This result was consistent with the study of Elkhafaifi (2005) who compared the effects of vocabulary preview, question preview and repeated exposure of the listening performance of EFL Arabic students. His study also showed that repetition of listening text is a better predictor of improved performance of the students. Moreover, repeated listening increased the exposure of the listening and it allowed the students to use this repetition to verify and confirm their answers. The result also was similar to Chang and Read (2006) who examined the effect of four types of listening supports—previewing the test's questions, repetition of the listening input, providing background knowledge about the topic, and vocabulary instruction—on listening performance of EFL college students in Taiwan. The results showed that the most effective type of listening support was providing background information of the topic, followed by repetition of the listening input.

In relation to the second most effective listening support, question preview, the result of this study partially supported some findings of previous studies but also contradicted some. In fact, the findings concerning the effects of question preview remain inconclusive. On the effective side, question preview is a good listening prompt for students to make use of listening strategies. It can give the students directions to what to listen for as well as some clues and allows

students to grasp important information to answer a question. Although the result showed that preview questions are beneficial to some students, their benefit is limited. The questions in the ELP-Test are not only on "direct comprehension"; therefore, if the students rely on the questions to answer each item, they might not be prepared to process the information in order to answer every item in the test.

As for the insignificant effect of vocabulary preview, this finding seems to coincide with previous studies. Despite empirical data that vocabulary is one of the major factors affecting listening comprehension, providing vocabulary does not necessarily facilitate English listening performance. Students may even be able to guess the content of the test from the vocabulary. However, it takes more than just knowing the meaning of words to understand the listening text. As Berne (1995) pointed out, it is not conventional for listeners to study vocabulary prior to listening in order to grasp the meaning of spoken messages in daily life. This result is consistent with the study of Chang and Read (2006) in that the vocabulary instruction was the least effective form of listening support for any proficiency levels.

It should be noted that in conducting this study, the researcher only elicited unfamiliar vocabulary from 20 representative students from the two levels of proficiency. Therefore, the results could be more valid if representative vocabulary is obtained from larger samples.

5.2.2 Levels of Language Ability and Listening Performance

In response to the second research question, the result indicates that there is a significant difference between the listening performances of the high and low groups; the finding is not surprising. However, the analysis shows that no significant interaction effect was found between the listening supports and proficiency levels. This shows that the listening performance of the students does not change due to each listening support. In other words, different types of

listening supports do not significantly affect the degree of listening performance of the high proficiency group or the low proficiency one. That is, high proficiency students perform equally well in all experimental groups, and the low proficiency students perform equally poorly in all listening support groups.

5.2.3 Frequency of Listening Strategies Used

This study defined listening strategies according to the descriptions by Vandergrift (1997) and Goh (2002) with the realization of listening sub-skills by Weir (1993) to focus on the listening strategies used during a test situation rather than in a classroom situation. Therefore, the term "listening strategies" refers to the listening strategies that the students use before, during and after taking a listening test. The results indicate that the students used a variety of listening test taking strategies at high and medium levels.

5.2.4 Listening Strategies and Levels of Language Ability

In relation to listening strategies and levels of language ability, this study shows that the students from both groups used similar strategies, but the high ability students used strategies more frequently than their lower ability counterparts. The results are consistent with several previous studies. For example, Murphy (1985) used an introspective technique to investigate 12 students from both more and less proficient groups. The study showed that both groups used the same seventeen strategies while listening to a listening text; but the more proficient students tended to be more flexible in their use of strategies. Vandergrift (2003) investigated listening strategies used by L2 (French) students and the differences in strategy use among the less and more skillful students. The study revealed that participants across different abilities employed strategies differently. More skillful listeners tended to use more metacognitive strategies than the less skillful participants. Moreover, there were also differences in the use of strategies classified under metacognitive strategies: monitoring, elaborating, and translation. Goh (1998) investigated the differences in the use of cognitive and metacognitive strategies of Chinese ESL listeners at different listening

abilities. The results indicated that high ability listeners used more strategies and tactics than the low ability ones.

Moreover, Chang (2003) examined the differences of strategies used between high and low proficiency college students. The study indicated that the difference of strategy uses between high and low proficiency students was statistically significant. Piamsai (2005) studied the use of cognitive and metacognitive strategies across two levels of ability: high-listening ability and low-listening ability of Thai students at Chulalongkorn University. Her study revealed that the high-listening ability participant group employed more cognitive and metacognitive strategies than the low-listening ability one.

Apart from looking at the relationship between listening strategies used, several studies also focused on the relationship between listening proficiency and strategies. Lui (2008) studied the relationship between listening proficiency levels and strategies used by 101 Taiwanese university EFL (English as a Foreign Language) students using questionnaires of listening strategy use (O'Malley *et al*. 1985; Vandergrift1997). The results showed that there was a relationship between listening proficiency levels and strategies used. Also, Wang (2002) examined senior high EFL students to see the relationship between strategy use and listening proficiency of . The result showed a significant relationship between the strategy use and listening proficiency. This study also showed that more effective listeners applied more strategy use than less effective listeners.

In addition, Bidabadi and Yamat (2011) studied the relationship between listening strategies used by Iranian first year students and their listening proficiency levels. Their study indicated that there was a significant positive correlation between the listening strategies employed and their listening proficiency levels.

In conclusion, the results found in this study correspond with most of the studies reported above in terms of language ability and strategies used among students with different levels of proficiency. The difference lies in the degree of frequency where high ability students seem to employ listening strategies more frequently than their lower ability student counterparts.

5.3 Implications of the Study

The findings of this study have contributed to the following aspects:

1. This study has shown that listening performances of EFL students can be affected by the forms of listening supports provided. The students performed better in the twice-heard condition listening test. This part of the finding reinforces the importance of repetition in a listening test. This repetition might not be applicable in a standardized test or summative assessment, but it might be useful in the formative assessment as a part of instructional procedure. As Ross (2005, cited in Vandergrift 2007) suggests, a process-oriented assessment may lead to more engagement of learners and can be a positive impact on L2 listening success.

2. Although vocabulary preview was considered the least effective form of listening support in this study, it is still an important issue for students. As suggested by Tsai (2005), the more vocabulary the students know the better listening comprehension the students have. Also, as shown in the study of Mehrpour and Rahimi (2010), providing students with vocabulary glossary significantly affected the performance of Iranian students. Their scores were much higher than the group that had no vocabulary glossary provided. Moreover, students need to be preview vocabulary not just by the meaning of the words, but they need to be informed about how to pronounce the words, and how they are pronounced in real sentences with the natural pauses and paces of speakers.

3. As for listening strategies, the study focused on the frequency of listening strategies that students used. The findings indicate that overall students used listening strategies at medium and high levels. However, there are differences between the frequency of listening strategies used between high ability students and low ability students. Even though this study did not concern the effectiveness of these strategies, it can be seen that high ability students used listening strategies more frequently than their lower ability counterparts. Therefore, if not directly, to encourage low ability students to use strategies more frequently might be a way to improve their listening performance and this might need formal instructions. In other words, strategy-based instruction can be introduced in the classroom. As stated by Flowerdew and Miller (2005), the "… way in which teachers can introduce students to listening strategies is by a specific learning training program or by integrating learning skills objectives into their regular teaching program". Also, Anderson (1990) suggests that a teacher explanation should provide information about the strategy: what, when, where, why, and how it should be used as well as how to evaluate the strategies used. Wenden (1987:15) also suggests that it is important for the teacher to help the students "acquire the attitudes that enable them to use the strategies or skills more confidently, flexibly, appropriately and independently of a teacher.

5.4 Recommendations for Further Research

1. The finding of this study indicated that the listening performance of the students may be affected by different forms of listening supports. This study has investigated the effect of three types of listening supports: question preview, vocabulary preview, and repeated input. It is recommended that further research investigate other types of listening supports, or other factors that may influence the performance of listeners such as speech rate. Therefore, it is worthwhile to examine different types of listening supports. Moreover, as it was found that there have been only a limited number of studies of the listening skills of Thai EFL learners in a classroom setting, testing setting as well as listening strategies, further studies on listening skills in these aspects is recommended.

2. Listening strategies can be related to the affective domain which might not be revealed clearly by using a questionnaire or an interview. Also, covert behaviors need time and appropriate context to observe. It is recommended that a longitudinal, in-depth qualitative study be carried out to study in-depth information about English listening strategies in English language learning and assessment.

3. As the students who participated in this study came from various study programs, this diversity became an uncontrollable variable in this study. Despite the verification of homogeneity of the students, differences among students could be found in terms of their background knowledge, learning experiences, academic language exposure and specific knowledge of their disciplines. Further research should focus on homogeneous groups of students to participate in the study so that the results could be comparable.

5. This study focused on listening strategies, but learning strategies can be applied to different language skills. Further studies should focus on the similarities and differences in the uses of learning strategies between listening skills to other skills especially its receptive counterpart, reading skills, and how strategies transfer from one language skill to another.

6. From this study, the result indicated that listening supports affected the listening performance of first year university students. However, apart from listening supports, there are other factors that may affect the performance of the students. Therefore, studies on the effect of different characteristics of input might be needed for further investigation.

7. The listening assessment is well-established in all standardized tests as summative listening proficiency tests. However, listening skills can be assessed through different forms of assessment i.e. formative testing especially in

classroom situations where listening skills are limited. Therefore, further studies may focus on formative tests and how they differ from typical summative tests.

8. The focus of this study was on first year university students. However, it may be interesting to probe more on the differences between listening strategies used between first year students and other levels of students especially fourth year students as they are about to graduate and will be using their English skills in real life situations.

9. Last but not least, as listening skills are very important, further study should focus on the relationship between listening ability and other variables such as the relationship between listening ability and vocabulary knowledge of students. Moreover, the relationship of listening strategies and other variables like learning styles may be in need of further study.

References

ภาษาไทย

รศ.ธานินทร์ ศิลป์จารุ. (2551). **การวิจัยและวิเคราะห์ข้อมูลทางสถิติด้วย SPSS.** ครั้งที่ 9. กรุงเทพฯ: บิสซิเนสอาร์แอนด์ดี.

ภาษาอังกฤษ

Anderson, J. R. (1985). *Cognitive psychology and its implication* (2nd ed.). New York: Freeman.

Arnold, J. (2000). Seeing through listening comprehension exam anxiety. *TESOL Quarterly*, 34, 777–786.

Atken, K.G. (1978). Measuring Listening Comprehension. English as Second Language. TEAL Occasional Papers, Vol. 2. Vancouver: British Columbia Association of teachers of English as an Additional language. ERIC Document Reproduction Service No. ED 155945.

Bachman, L. F. (1990). *Fundamental Considerations in Language Testing*. Oxford: Oxford University Press.

Bachman, L. F., & Palmer, A. (1996). *Language testing in practice*. Oxford: Oxford University Press.

Berne, J. E. (1993). The Role of text Types, Assessment Task, and Target Language Experience in L2 Listening Comprehension Assessment. ERIC document Reproduction Service No. ED 358737.

Bidabadi, F. & Yamat, H. (2011). The Relationship between Listening Strategies Used by Iranian EFL Freshman University Students and Their Listening Proficiency Levels. English *Language Teaching*, 4 (1):26-32.

Berne, J.E. (2004). Listening Comprehension Strategies: A Review of the Literature. *Foreign Language Annals* 37(4): 521-533.

Boonyarattapan, C. (2006). The effects of test formats and varieties of English on test takers' listening comprehension ability, Dissertation, Chulalongkorn University.

Boyle, J. P. (1984). Factors affecting listening comprehension. *ELT Journal* 38(1): 34-38.

Brindley, G. (1997). Investigating second language listening ability: listening skills and item difficulty. In G. Brindley & G. Wigglesworth (eds.), Access: issues in language test design and delivery: Research Series 9 Sydney: national Center for English Language Teaching and research, Macquarie University.

Brindley, G. & Slatyer, H. (2002). Exploring task difficulty in ESL listening assessment. *Language Testing*, 19: 369-394.

Brown, G. (1995). Dimensions of difficulty in listening comprehension. In D. Mendelsohn and J, Rubin (Eds.), A guide for the teaching of second language listening: 59-73. San Diego, CA: Dominie Press.

Brown, H.D. (2004). Language Assessment: Principle and Classroom Practices. New York: Person Education, Inc.

Brown, J.D. (2005). *Testing in Language Programs*: *A Comprehensive Guide to English Language Assessment: A Comparative Guide to English* Language Assessment. New York: McGraw-Hill.

Buck, G. (1991). The testing of listening comprehension: An introspective study. *Language Testing*, 8(1):67–91.

Buck, G. (2001). *Assessing Listening*. Cambridge: Cambridge University Press.

Buck, G. & Tatsuoka, K. (1998). Application of the rule-space procedure to language testing: Examining attributes of a free response listening test. *Language Testing*, 15(2):19-157.

Burdens, K. & Abbott, B. (2006). Research design and methods: a process approach. New York: McGraw-Hill.

Byrnes, H. (1984). The role of listening comprehension: A theoretical base. Cambridge University ESOL Examination, (2008). First Certificate in English: Teacher Handbook for examinations from December 2008: Cambridge University Press.

Carrell, P., Dunkel, J & Mollaun, P. (2004). The effects of note-taking, lecture length, and topic on a computer-based test of EFL listening comprehension. *Applied Language Learning*, 14: 83–105.

Celce-Murcia, M. (2001). *Teaching English as a second or foreign language* (3rd ed.). Boston, MA: Heinle & Heinle.

Cervantes, R. & Gainer, G. (1992). The effects of syntactic simplification and repetition on listening comprehension, *TESOL Quarterly*, 26: 767-70.

Chang, A. & Read, J. (2006). The Effect of Listening Support on the listening Performance of EFL Learners. TESOL Quarterly, 40: 375-395.

Chang, A. & Read, J. (2007). Supports for Foreign Language Listeners: its Effectiveness and limitations. *RELC*, 38(3): 375-395.

Cheng, H. (2004). A comparison of multiple-choice and open-ended response formats for the Assessment of Listening Proficiency in English. *Foreign Language Annals*, 37 (4): 544-555.

Chung, H.S. (2002). Interrelationship between Prior-knowledge and language proficiency in L2 Listening Comprehension. *Korean Journal of English Language and Linguistics*, 1(1):187-209.

Chiang, J. & Dunkel, J. (1992). The effect of speech modification, prior knowledge and listening proficiency on EFL lecture learning. *TESOL Quarterly*, 26: 345–374.

Chiang, C. H. (2000). Effect of listening strategy instruction on junior high school students, Master's Thesis, National Tsing Hua University Taiwan.

Dunkel, P. A. (1991). Listening in the native and second/foreign language: toward an integration of research and practice. *TESOL Quarterly*, *25*:431-457.

Elkhafaifi, H. (2005). The Effect of Pre-listening Activities on Listening Comprehension in Arabic Learner. Foreign Language Annals, 38(4),:505-513.

Flowerdew, J. & Miller, L. (2005). *Second Language Listening: Theory and Practice*. Cambridge: Cambridge University Press.

Field, A. (2005). *Discovring statistics using SPSS*. California: Sage Publication, Inc.

Frankel, J.R., & Wallen, N.E. (2006). How to Design and Evaluate Research in Education, 6th edition. Boston: McGraw-Hill.

Ginther, A. (2002). Context and content visuals and performance on listening comprehension stimuli. *Language Testing*, 19: 133-167.

Goh, C. (1998). How ESL learners with different listening abilities use comprehension strategies and tactics. *Language Teaching Research*, 2(2), 124-147.

Goh, C. (2002). Exploring listening comprehension tactics and their interaction patterns. *System*, 30:185-206.

Gravetter, F. &Forzano, L. (2006). *Research Method for the behavioral science*. USA: Thomson Wadsworth.

Hale, G.A. & Courtney, R. (1994). The effects of note-taking on listening comprehension in the Test of English as a Foreign Language. *Language Testing* 11(1):29-47.

Hsu, W. C. (2005). An Investigation on Students' Meaning Comprehension and Expression While Learning Stories Presented in Various Formats: The Context of Guei-Ren Junior High School. Unpublished master thesis, Southern Taiwan University.

In'nami, Y. (2006). The effects of test anxiety on listening test performance. System, 34, 317-340.

Jakeman. V & McDowell, C. (2003). Insight into IELTS. Cambridge: Cambridge University Press.

Irvine, C. (2002). ECCE: Listening Section Teaching Resources for the University of Michigan.

Liu, H. (2008). An Investigation into Listening Comprehension Difficulties of More Skilled and Less Skilled Listeners and the Concordant Strategies. *Chinese EFL Journal*, 1(1): 78-98.

Major, R., S. et al. (2002). The effects of non-native accents on listening comprehension: Implications for ESL assessment. *TESOL Quarterly*, 36(2), 173–190.

Mendelsohn, D. (1994). *Learning to listen.* San Diego CA: Domine Press.

Mangubhai, F. (1991). The processing behaviors of adult second language learners and their relationship to second language proficiency. Applied Linguistics. 12:268-298.

Mehrpor, S. & Rahimi, M. (2010). The impact of general and specific vocabulary knowledge on reading and listening comprehension: A case of Iranian EFL learners. *System*, 38:292-300.

Murphy, J. M. (1987). The listening strategies of English as a second language College students. Research and Teaching in Developmental Education, 4 (1).

Nation, I.S.P, & Newton, J. (2009). *Teaching ESL/EFL Listening and speaking*. New York: Routledge.

O'Malley, J. M., Chamot, A. U. & Küpper, L. (1989). Listening Comprehension Strategies in Second Language Acquisition. *Applied Linguistics*, 10(4), 418-437.

O'Malley, J. D. & Chamot, A. U. (1990). *Learning Strategies in Second Language Acquisition*. Cambridge: Cambridge University Press.

Othman, J. & Vanathas, C. (2005). Topic Familiarity and its influence on listening Comprehension. *The English Teacher*, XXXIV: 19-32.

Oxford, R. L. (1990). *Language Learning Strategies: What Every Teacher Should Know*. New York: Newbury House.

Piamsai, C. (2005). The Relationships between Learning Strategies and English Computer-based Listening Test Performance of Thai University Students. PH.D Dissertation, Chulalongkorn University, Bangkok, Thailand.

Park, S. (2009). Verbal report in language testing. The journal of Kanda University of International Studies, 21, 287-307.

Plonsky, M. (2009). Analysis of Variance - Two Way. Retrieved 24 July, 2009 from http://www.uwsp.edu/PSYCH/stat/13/anova-2w.htm#I3

Purpura J.E. (1999). Investigating the effects of strategy use and second Language test performance with high- and low-ability test takers: A Structural Equation Modelling Approach. *Language Testing*, 15 (3):333-379.

Rost, M. (2002). *Teaching and Researching Listening*. Harlow: Longman.

Read, J. (2002). The use of interactive input in EAP listening assessment. *Journal of English for Academic Purposes*, 1:105-119.

Rubin, J. (1994). A review of second language listening comprehension research. *The Modern Language Journal.* 78(2):199-221.

Sadighi, V. & Zare, S. (2006). Is Listening Comprehension influenced by the background knowledge of the learners? A Case of Iranian EFL learner. *The Linguistics Journal*, 1(3):110-126.

Schmidt-Rinehart, B. (1994). The Effects of Topic Familiarity on Second Language Listening Comprehension. *The Modern Language Journal*, 78 (2), 179-198.

Schwartze, A.M. (1998). Listening in a foreign language. ERIC document Reproduction Service No. ED 433723.

Sherman, J. (1997). The effect of question preview in listening comprehension tests. *Language Testing, 14*:185-213.

Shohamy, E. & Inbar, O. (1991). Validation of listening comprehension tests: the effect of text and question types. *Language Testing*, 8 (1): 23-40.

Stevens, J. (2002). *Applied multivariate statistics for the social sciences*. (4th ed). NJ: Lawrence Erlbaum.

Suwaphab, C. (1998). Effects of cognitive strategy instruction on English listening comprehension ability of M4 students in school under the office of the private education commission, Bangkok Metropolitan, Master's Thesis, Department of Secondary Education, Faculty of Education, Chulalongkorn University, Bangkok, Thailand.

Tabachnick, B. G. & Fidell, L. S. (2001). *Computer-Assisted Research Design and Analysis*. Boston: Allyn and Bacon.

Teng, H. C. (1998). The effects of text types and task types on English listening comprehension. *English Teaching Journal*, 23: 5-18.

Tsai, B. Y. (2005). The relationship between receptive English vocabulary sizes and listening comprehension competence of EFL students. A Master's thesis, National Kaohsiung University, Taiwan.

Underwood, M. (1989). *Teaching listening*. London: Longman.

Vandergrift, L. (1997). The strategies of second language (French) listeners: A descriptive study. *Foreign Language Annals, 30(3),* 387-409.

Vandergrift, L. (2002). Orchestrating strategy use: Toward model of the skilled second language listener. *Language Learning*, 53:463–496.

Vandergrift, L. (2007). Recent developments in second and foreign language listening research. *Language Teaching*, 40:191-210.

Vogely, A. (1995). Perceived Strategy Use During Performance on Three Authentic Listening Comprehension Tasks. *Modern Language Journal*, 79(1): 41-56.

Wang, W. (2002). Effects of Gender and Proficiency on Listening Comprehension Strategy Use by Taiwanese EFL Senior High School Students. Unpublished Master's Thesis, National Changhua University of Education, Changhua, Taiwan.

Wenden, A. & Rubin, J. (1987). *Learner Strategies in Language Learning.* Hertfordshire: Prentice Hall.

Weir, C.J. (1993). *Understanding & Developing Language Tests*. Great Britain: Prentice Hall International (UK) Ltd.

Weir, C. (2005). *Language Test Validation: an Evidence-based Approach*. Oxford: Palgrave.

Weir, C & Shaw, S. (2005). Establishing the Validity of Cambridge ESOL Writing Tests: towards the implementation of a socio-cognitive model for test validation, Research Notes 21: 10-14.

Wikibook (2009). Two-Way ANOVA. Retrieved 23 July 2003, from http://en.wikibooks.org/wiki/Research_Methods:Two_Way_ANOVA#Advantage_of_the_Two-variable_Design.

Yi'an, W. (1998). What do tests of listening comprehension test? A retrospection Study of EFL test-takers performing a multiple-choice task. *Language Testing*, 15:21-44.