#### INTRODUCTION

With the development of SLA (Second Language Acquisition) research, listening has been given a major boost by the role of comprehensible input emphasized. In retrospect, the previous research studies have been centered on the EFL (English as a Foreign Language) listening strategies (Murphy, 1985; Ridgway, 2000; Vandergrift, 1999). For example, Murphy (1985), who explored the EFL learners' oral and written responses to the listening tasks, demonstrated that the successful listening performance was contingent upon a battery of listening strategies, such as inferring and connecting. Similarly, in Taiwan a great deal of researchers dwelt much on Taiwanese students' EFL listening strategies (Huang, 2007; Teng, 1998). Teng (1998), for instance, indicated that the EFL learners who were less proficient in listening ability relied heavily on the linear processes of the listening comprehension (i.e. from phonemes, lexicons, phrases to the sentences) or the literal translation from their native languages. Despite most of their efforts to spell the developments of listening strategies, the precise diagnosis of Taiwanese students' listening difficulties was still left to be desired. Virtually, a handful of researchers have revealed the factors impeding students' listening performance, such as test formats (Chen & Cheng, 2007) and speaking rates (Hsu, 2005). results of learners' listening performance were mostly elicited by questionnaires, weekly journals, dictations, etc. A paucity of research explored the technological university students' listening difficulties through analyzing their erroneous responses to the test items. That is the major reason why the writer is motivated to explore this issue.

Distinct from the other stimulus-response listening tasks (e.g. dialogue or textual comprehension tests), the picture description listening test is assumed to be seeded with the microskills of listening, such as tenses, numbers, homonyms and so forth. Learners of English would be considered to be less successful in their listening proficiency if being oblivious of such a bottom-up listening process (Nunan, 1997). Accordingly, the writer of the study is re-motivated to investigate

the less proficient technological university students' proficiency in the microskills of listening by means of the picture description test.

On the foundation of the aforementioned research contributions to the EFL students' listening performance, this paper formulates the following research questions:

- 1. What is the less proficient technological university students' overall performance in the picture description listening comprehension test?
- 2. Which linguistic factors are most likely to sway students' performance in the picture description listening comprehension test?
- 3. Which non-linguistic factors impede students' performance in the picture description listening comprehension test?

#### LITERATURE REVIEW

No longer being treated as the competence acquired automatically, listening has attracted a great deal of attention in exploring its nature and characteristics since the past three decades. In the field of second language listening acquisition, the bottom-up and the top-down models have been postulated to be the complex nature of processing spoken language. In a bottom-up process, the utterance is built up according to their syntactic and grammatical knowledge (Anderson & Lynch, 1988; Field, 2004; Vandergrift, 2004). A top-down process, distinctively, refers to the prior knowledge and global expectations which lead to the comprehension of the sentential meanings and the activation of the related micro-linguistic elements. (Anderson & Lynch, 1988; Nunan, 1997; Rubin, 1994).

A number of empirical researches have devoted to the leveled listeners' use of the bottom-up or top-down processing. In general, listeners at a higher level are found to prefer knowledge-based approaches. In O'Mallley, Chamot, and Kupper's (1989) study, the intermediate ESL learners were asked to report what they were thinking during the interruption in a listening comprehension activity.

The results disclosed that effective listeners referred to their background knowledge in the process of text comprehension as well as understanding confirmation. As background knowledge is weighed to be a critical component of the top-down process, Schmidt-Rinehart (1994) provided both familiar and unfamiliar information for subjects to recall the situations in two listening passages. The higher scores on familiar passages suggested that listeners' comprehension was apparently facilitated by their background knowledge.

On the other hand, the low-proficiency level listeners are concluded to rely heavily on bottom-up processing skills. The study by Osada (2001) focused on how the less proficient EFL listeners from Tokyo depended on bottom-up or top-down processing while they were processing global and local questions. It revealed that the sampled students tended to apply bottom-up processing more for not being able to tolerate the ambiguity of the scraped ideas. The result echoes Vandergrift's (2003) findings on the strategy use for the skilled and less-skilled listeners. It was verified that less-skilled listeners rarely had top-down processing engaged while listening. Instead, they translated a chunk of text word by word without connecting ideas from one segment to another. In addition, Tsui and Fullilove (1998) conducted the listening tests with two schema types in large-scale public examinations in Hong Kong to investigate which processing was more valid in discriminating L2 listeners' performance. For the "non-matching" schema type, the participants applied microskills to process the incoming linguistic cues For the "matching" schema type, however, macroskills were employed to understand the text as a whole and to draw conclusions or inferences. The survey demonstrated that bottom-up process was more preferred than top-down process in discriminating the L2 listening performance.

In view of the prior studies, a microskill based test is regarded as an appropriate vehicle to evaluate the less successful EFL listeners' performance. However, scarce attention has been drawn to plumb the factors of these learners' difficulties on listening comprehension. As stresses by Boyle (1984), surveys of the factors help define students' problems and establish realistic objectives in testing as well as teaching. By the emerged factors, educators and researchers

will find out what the specific difficulties the students face and how to direct them to reach a significant improvement in language acquisition. The present study, in consequence, intends to employ the GEPT picture description listening comprehension test, which is basically bottom-up process integrated, to figure out how the less proficient technological university students perform and to trace the main factors impeding their performance.

#### **METHODOLOGY**

## **Participants**

In this study, 150 non-English majors at a technological university in southern Taiwan were invited to take a picture description listening test. These participants were recognized as the less proficient EFL learners on the basis of the English placement test administered by the university on the first day of their freshman year.

#### **Instruments**

There are two instruments in the present study. One is the GEPT picture description listening comprehension test. The picture description test in this study was sourced from the elementary level GEPT practice tests (see Appendices, hereafter T2 & T3) published by the Language Training & Testing Center (LTTC). With the consideration of the validity and reliability in the data collection, the writer administered two elementary level GEPTs in a row, totaling twenty test items. Each correct answer was distributed with four points based on the scoring by LTTC. The total score of each copy of the practice tests (T2 & T3) was 40 points. The other instrument is the post-test interviews. Focusing on the mis-responded question items, participants were invited to orally provide their test-taking strategies and the factors hampering their listening proficiency.

#### **Data Collection & Procedure**

This paper started with designing the picture description test items adapted from the elementary level GEPT practice tests by LTTC. Afterwards, the writer

of this study proctored the test administration in a formal classroom setting. Followed by the quantitative (e. g. T-test analysis) and the qualitative data analyses (sorting out the interfering factors), post-test oral interviews with sampled test participants served as another compelling evidence for this test result. The interviews were conducted in class a week after the test. With the returned answer sheets and test papers, all participants in three different classes examined every single question item by listening to the aural input again, one at a time, to recollect their reasons for choosing the incorrect answers. For each question, the reports from the students who responded incorrectly in the test were recorded.

## **Data Analysis**

Descriptive statistics were employed to exhibit participants' test performance and difficulty factors by level. The T-test was also utilized to estimate participants' proficiency and offer the p-value for examining whether or not the two copies of the GEPT practice tests were at the same difficulty level for participants.

#### RESULTS AND DISCUSSION

This section, according to the research questions provided earlier, comprises three major parts: (1) the overall performance in the GEPT picture description listening test, (2) the linguistic factors affecting participants' performance, and (3) the non-linguistic factors impeding test participants' listening achievements. Each part is further described in the following.

## The Overall Performance in the GEPT Picture Description Listening Comprehension Test

This section sets out with the analysis of participants' overall performance in the GEPT picture description listening test. In the preceding section, the test items were selected from two copies of the elementary level GEPT practice tests by LTTC. Before illustrating participants' difficulty levels in the micro-skills of listening, the writer attempts to detect whether test participants' listening performance is consistent in this research program. Table 1 presents the results as follows:

$$\begin{cases} H_0: \mu_{T2} = \mu_{T3} \\ H_1: \mu_{T2} \neq \mu_{T3} \end{cases}$$

Table 1. The results of the overall picture description listening tests

GEPT Test	N	Mean	SD	df	t-value	p-value
T2	150	25.25	2.61	298	-5.85	*00.
T3	150	29.49	2.30	298	-3.63	.00

<sup>\*</sup>p < .05

As seen in Table 1, the mean scores (T2: 25.25; T3: 29.49) are higher than 24.00, the passing score of the corresponding criteria revised by LTTC in 2008. Nevertheless, through the observation of the mean scores, the selected technological university students' listening performance was comparatively inferior in T2. Such a mean score discrepancy between T2 and T3 leads to a statistically significant difference (p-value = .00). That indicates that T2 and T3 were not at the same difficulty level for participants. Here begs some questions: Which factors resulted in the invited participants' less successful listening performance in T2? Did these factors also act as the wielding forces in participants' performance in T3? The follow-up two subsections provide the detailed accounting for these two questions. Before this, in order to discern the factors impeding participants' listening performance in each test item. The results are tabulated in the following:

Table 2. The item analysis of test-takers' erroneous listening performance in T2 and T3

(A) T2

Item distractor	1	2	3	4	5	6	7	8	9	10
A		10 (6.67%)	19 (12.67%)		9 (6.00%)			38 (25.33%)	32 (21.33%)	
В	3 (2.00%)			20 (13.33%)	71 (47.33%)	3 (2.00%)	101 (67.33%)		51 (34.00%)	17 (11.33%)
С		23 (15.33%)	17 (11.33%)	35 (23.33%)		14 (9.33%)	22 (14.67%)	56 (37.33%)		16 (10.67%)
Total (Percentage)	3 (2.00%)	33 (22.00%)	36 (24.00%)	55 (36.67%)	80 (53.33%)	17 (11.33%)	123 (82.00%)	94 (62.67%)	83 (55.33%)	33 (22.00%)

(B) T3

Item distractor	1	2	3	4	5	6	7	8	9	10
A	1 (0.67%)	2 (1.33%)				19 (12.67%)		53 (35.33%)		30 (20.00%)
В	1 (0.67%)			25 (16.67%)	3 (2.00%)	80 (53.33%)	45 (30.00%)		38 (25.33%)	
С			3 (2.00%)	23 (15.33%)	3 (2.00%)		3 (2.00%)	9 (6.00%)	28 (18.67%)	22 (14.67%)
Total (Percentage)	2 (1.33%)	2 (1.33%)	3 (2.00%)	48 (32.00%)	6 (4.00%)	99 (66.00%)	48 (32.00%)	62 (41.33%)	66 (44.00%)	52 (34.67%)

As illustrated in Table 2, more than fifty percent of participants considered the following test items difficult: T2Q7 (Test 2, Question 7) (82.00%), T3Q6 (66.00%), T2Q8 (62.67%), T2Q9 (55.33%), and T2Q5 (53.33%). Particularly, the sampled non-English majors' less successful performance in the test items T2Q7, T3Q6, and T2Q8 are concisely presented as follows:

## T2Q7: What do you see in the classroom?

Error Rates	82.00% (N=123)
	(A) There is a clock on the wall.
(N=101; 67.33%)	(B) Mr. Lin is standing next to John
(N=22; 14.67%)	(C) The door behind John is closed.

#### T3Q6: What is true about Fred and Rita?

Error Rates	66.00% (N=99)
(N=19; 12.67%)	(A) Both Fred and Rita are wearing glasses.
(N=80; 53.33%)	(B) Both Fred and Rita are pouring coffee.
	(C) Both Fred and Rita are holding cups.

## T2 Q8: What is true about the man?

Error Rates	62.66% (N=94)
(N=38; 25.33%)	(A) He's wearing a sweater.
	(B) He's wearing a tie.
(N=56; 37.33%)	(C) He's wearing a hat.

As seen in three examples listed above, participants' listening achievements were hindered by either the linguistic factors (e.g. the lack of vocabulary knowledge in T2Q8) or the non-linguistic factors (e.g. the picture *per se* in T2Q7). In order to be clear of the factors cramping the sampled students' listening performance in this study, the writer endeavors to figure out the interfering factors in the following two major subsections.

# The Linguistic Factors Affecting Participants' GEPT Picture Description Listening Achievements

This subsection answers the second research question pertaining to the interfering linguistic factors to the sampled university students' listening performance. Table 3 provides an array of linguistic factors attributive to students' less successful EFL listening behaviors.

Table 3. Linguistic factors greatly affecting participants' listening performance

Lingui	Linguistic factors		Error Rates & Test Items							
		≥ 50%	40-49%	30-39%	20-29%	10-19%	<10%			
	The lack of	T3Q6(B)		T2Q8(C)	T2Q8(A)	T2Q4(B)	T2Q1(B)			
	certain				T2Q4(C)	T2Q3(A)	T3Q8(C)			
Vocabulary	vocabulary				T3Q9(B)	T2Q10(B)	T3Q5(C)			
Knowledge	knowledge					T3Q6(A)	T3Q3(C)			
Knowledge	Knowledge					T3Q9(C)	T3Q2(A)			
							T3Q7(C)			
	Homonyms/			T2Q9(B)	T2Q9(A)	T2Q3(C)				
	Similar sounds			T2Q8(C)	T3Q10(A)	T2Q7(C)				
	Tenses/Aspects		T2Q5(B)	T3Q8(A)	T3Q9(B)	T3Q9(C)	T2Q5(A)			
	Agents/Themes			T3Q7(B)		T2Q2(C)	T2Q2(A)			
Grammar							T2Q6(C)			
	Comparatives/					T2Q10(C)				
	Superlatives					T3Q10(C)				
	Quantifiers						T3Q8(C)			

According to participants' listening responses, vocabulary and grammar rules were still the stumbling blocks to their listening achievements (see Table 3). In speaking of the vocabulary knowledge, the sampled university students had not mastered the frequently used lexicons, which led to their less successful listening performance. This finding is in accord with Kelly's (1991) declaration that lexical ignorance is the major obstacle to auditory comprehension for foreign language listeners. Also, these test participants were not familiar with the lexical pronunciation, resulting in their misinterpretation of the incoming aural stimuli. In the following, the writer illustrates the vocabulary factors that hindered participants' overall listening performance.

The lack of knowledge regarding the frequently used lexicons

In this section, the lexicons that the sampled university students felt most difficult are presented. According to Table 3, participants manifested their less successful performance in the test item T3Q6:

T3Q6: What is true about Fred and Rita?

Error Rates	Distractors
(N=80; 53.33%)	(B) Both Fred and Rita are pouring coffee.

Through the written responses and the post-test oral interviews, participants were found not to figure out the meaning of the lexicon *pour*. Consequently, the best bet for their responses was to capture the familiar lexicon *coffee*, setting aside the lexical meaning *pour*. Likewise, they employed the same test-taking strategy to wrestle with the following test item:

T2Q8: What is true about the man?

Error Rates	Distractors
(N=38; 25.33%)	(A) He's wearing a sweater.
(N=56; 37.33%)	(C) He's wearing a hat.

As seen in T2Q8, 62.66% of participants failed to catch the precise lexical pronunciation *wear*, leading to their random guess at the target answer. Being intrigued by students' erroneous written responses to the given test items as well as their post-test oral interviews, the writer manages to provide the following list which is mainly concerned with students' difficulties in comprehending the italicized lexicons:

Table 4. Lexicons that students felt difficult in the picture description listening test

Lexicons	Test items	Error rates
Both Fred and Rita are <i>pour</i> ing coffee.	T3Q6(B)	53.33%
Q9: What will Maria most <i>probably</i> do next?	T3Q9	44.00%
He's wearing a hat.	T2Q8(C)	37.33%
Q4: What is happening on the <i>ground floor</i> ?	T2Q4	36.67%
He's wearing a sweater.	T2Q8(A)	25.33%
It's the eighth of <i>July</i> .	T2Q3(A)	12.67%
Both Fred and Rita are wearing glasses.	T3Q6(A)	12.67%
It's the <i>third</i> of June.	T2Q3(C)	11.33%
The TV is the same <i>price</i> as the washing machine.	T2Q10(B)	11.33%
Maria <i>order</i> ed two hamburgers.	T3Q8(C)	6.00%
They're at a <i>playground</i> .	T3Q5(C)	2.00%

He's writing a <i>report</i> .	T3Q3(C)	2.00%
Would you like more <i>sugar</i> in your coffee?	T3Q7(C)	2.00%
He's a lawyer.	T2Q1(B)	2.00%
They're watching baseball.	T3Q2(A)	1.33%

Evidently, as shown in Table 4, these sampled university students were indeed less familiar with the frequently used lexicons on the basis of the 7,000 Word List by Center of College Entrance Examination Center (CEEC). On the ground of the 7,000 Word List, the lexicon pour, which nearly 54% of sampled students felt difficult with, is allocated to the level 3 (i.e. the mid level). Likewise, the lexicon probably is allotted to the level 3. Interestingly, the lexicons lawyer and baseball, which a handful of students (2% at most) felt difficult with (see Table 4), are placed to the level 1, the most frequently used level. Thus, it is concluded that the lexical frequency levels had bearing on the sampled university students' picture description listening test performance. To put it differently, participants possibly mis-supplied their responses when the lexicons in the aural stimuli exceeded the frequency level 2. Additionally, according to the result of the post-test oral interviews, the lexicon third in the distractor T2Q3 (C) (It's the third of June) was parallel to Wednesday on the participants' part (around 12%). This was partly attributive to the small size of the vocabulary knowledge, resulting in the misinterpretations of the lexical meanings. Pedagogically implied, such a research finding informs the language instructors that the selected less proficient non-English majors have to greatly improve their vocabulary knowledge. Otherwise, students tend to randomly guess the desired answers or complete this listening task through capturing the familiar lexicons out of context.

#### Homonyms/Similar Sounds

In addition to the vocabulary knowledge, the sampled test participants felt bewildered by the lexicons with similar sounds (i.e. homonyms). On the basis of the Table 3, the writer categorizes the lexicons with confusing sounds in the following:

Table 5. Students' misinterpretation of the stimulated lexical pronunciations

Lexicons	Homonyms/Similar	Test items	Error rates
	Sounds		
He's wearing a hat.	head	T2Q8(C)	37.33%
It costs 90,900 NT dollars	19,900	T2Q9(B)	34.00%
It costs 1,990 NT dollars.	19 <i>19</i> , <i>90</i> 90, <i>9019</i>	T2Q9(A)	21.33%
Roger got the <i>best</i> score.	bad	T3Q10(A)	20.00%
The door behind John is closed.	close	T2Q7(C)	14.67%
What's the <i>date</i> today?	day	T2Q3(C)	11.33%

It is obvious that the minimal pairs (or the near minimal pairs hat-head) were assumed to be the major obstacle to these university students' less successful listening performance. Among the lexicons with confusing sounds in Table 5, students were not adept at the numerical pronunciation, especially ninety-nineteen (T2Q9(B) and T2Q9(A)). Additionally, upon the observation of the near minimal pairs hat-head in T2Q8(C) as well as best-bad in T3Q10(C), it was the voicing values of alveolar stops (i.e. /t/ and /d/) that seemed to be non-distinctive for these test participants. Also, these non-English majors failed to perceive the final voiceless alveolar stop /t/ in the lexicon date (T2Q3 (C)) and the voiced alveolar stop /d/ in closed (T2Q7(C)), leading to their misinterpretation as another lexicons day and close respectively. Accordingly, in this current paper, nearly 38% of students at most (T2Q8(C)) were not expert in the discrimination of the basic lexical pronunciation (e.g. the voicing value distinction). Therefore, the EFL instructors are well advised to map out a basic EFL listening instructional program, setting out with the distinction of lexical sounds and then proceeding to the memorization of frequently-used lexicons.

Aside from the vocabulary knowledge, the writer detects the grammar rules that hampered students' EFL listening performance. According to Table 3, the results are described in the following:

**Table 6. The interfering grammar rules in participants' listening achievements** (A) Tenses/Aspects

Tenses/Aspects	Test Items	Error rates
Future Aspect	T2Q5: Today <b>is</b> Friday. What will the	53.33%
_	weather be like tomorrow?	
Future Aspect	T3Q9: What will Maria most probably do	44.00%
_	next?	
Present Progress Aspect	T3Q8(A) Frank is drinking Coke.	35.33%

(B) Wrong persons (inconsistent with the presented pictures)

$ \stackrel{\cdot}{\circ}$ $\stackrel{\cdot}{\circ}$ $\stackrel{\cdot}{\circ}$ $\stackrel{\cdot}{\circ}$ $\stackrel{\cdot}{\circ}$	
Test items (focusing on the agents/themes)	Error rates
T3Q7: What might the man most probably be asking the woman?	30.00%
(B) Could you hold this bag for me?	
T2Q2: What's Amy doing?	22.00%
(A) She's saying hello to Wendy.	
(B) She's shaking hands with Allen.	
T2Q6: What's John's problem?	9.33%
(C) He's early for class.	

(C) Comparatives/Superlatives

Compara	tives/Superla	atives	Test items	Error rates
Superlati	ves	Γ	G3Q10(C): Steve got <i>the worst</i> score.	14.67%
Compara	tives	Γ	T2Q10(C): The TV is more expensive than	10.67%
		tl	he washing machine.	

## (D) Quantifiers (i.e. test-takers' ignorance of the numbers)

Test items	Error rates
T3Q8(C): Maria ordered <i>two</i> hamburgers.	

## Tenses/Aspects

Astonishingly, the sampled students devoted scant attention to the tenses/aspects during their listening comprehension (e.g. T2Q5: 53.33%; T3Q9: 44.00%). Specifically, students tended to bypass the simple future aspect in the aural stimuli, resulting to their improper responses. For instance, when taking the test item T2Q5, nearly 54% of sampled students hastily supplied the answers when immediately capturing the simple present tense (Today is Friday). Due to the sparse attention to the following elicited question *What will the weather be like tomorrow?*, more than fifty percent of them mis-selected the target answer (i.e. the

cloudy date on Saturday). Likewise, in the test item T3Q9, participants overlooked the future aspect. Consequently, it was not uncommon to see the interactive move *paying for the food* as the accurate response (see the picture in T3Q9). Furthermore, as seen in T3Q8, nearly 36% of test participants were not highly aware of the pragmatic function of the present progressive aspect, selecting the option (A) *Frank is drinking Coke* as the desired answer. To sum up, in comparison with the pictorial stimuli, the grammar notion *aspect* was inferred to be the relatively less salient information for these sample students. To put it in another way, these test participants drew themselves to the pictures *per se* without inferring the follow-up move.

## Wrong persons (Agents/Themes)

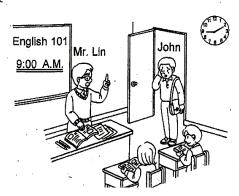
In addition to the tenses/aspects, participants did not draw a great deal of attention to the agents/themes, leading to the inaccurate responses. For instance, in the test item T3Q7, 30% of the participants focused solely on the action *holding* a bag without consideration of gender differences. By the same token, due to the overemphasis on the action *shaking hands* in the test item T2Q2, 22% of sampled students were not highly aware of the doer and the receptionist. Briefly, the printed stimuli (i.e. pictures) were the primary determinants for these students. The incoming aural signals were regarded as the secondary thought.

## The Non-linguistic Factors Affecting Participants' GEPT Picture Description Listening Achievements

In addition to the linguistic factors, this study discovered that several test distractors were mis-responded by participants owing to the pictorial clues. As stressed by Dry (1985), picture format listening tests can be defective because of pictorial ambiguity. The following provides the results of students' test performance in relation to the elicited picture:

Table 7. Participants' less successful listening performance owing to the pictorial clues

## F. Question 6 and 7



T2Q6: What's John's problem?

T2Q7: What do you see in the classroom?

Distractors	Error rates
T2Q6(B) He can't find his seat.	2%
T2Q7(B) Mr. Lin is standing next to John.	67.33%

As seen in Table 7, surprisingly 67.33% of participants selected the distractor (B) *Mr. Lin is standing next to John* as the best candidate for the receiving aural stimulus. According to participants' oral responses in the post-test interviews, they were not hampered in the lexical or the syntactic properties in the elicited question *What do you see in the classroom* as well as the written description in the distractor (B) *Mr. Lin is standing next to John*. The obstacle to nearly 68% of participants was the picture *per se*. In other words, the student *John* seemingly stands beside *Mr. Lin*. On the participants' part, it was not unreasonable to select the distractor (B) as the best response. Thus, in this research program, certain revisions are called for in the designed picture F in T2 as well as the elicited statements.

#### **CONCLUSION AND LIMITATIONS**

In the development of EFL listening acquisition research, there has been much attention paid to the strategy investigations. Nevertheless, no one would deny that the ascertainment of students' listening difficulties is the prelude of designing an efficient strategy-based approach. Probing the factors of students' listening problems, virtually, is the fundamental work to explore difficulties in listening processing. A successful EFL listening teaching is launched on the full understanding of the factors that might interfere students' learning before drafting curriculum planning. This is why Boyle (1984) asserted that "Any study of listening comprehension must take into account the factors involved." (P. 34)

From the reflection of the less proficient technological university students' performance in the GEPT picture description listening comprehension test, this study has highlighted the students' needs of intensive microskill training. The main linguistic and non-linguistic factors hampering students' listening proficiency were also categorized. It is hoped that the empirical outcomes could serve as a compensative reference in the future research of EFL listening acquisition. In classroom, instructors are encouraged to apply the results to be the guideline of designing efficient remedial approaches to assist the less proficient technological university students in cultivating their listening competence.

Still, there are some limitations in the current study. First, the participants were recognized to be less proficient English learners based upon a placement test without any listening test items. If a placement test is listening ability focused, a more significant result will be expected in such an EFL listening research. Second, to concentrate on the main factors of listening difficulty, the study did not take the odd factors given by a very small portion of the participants into account but only had the major ones classified. Third, since the participants were from one single technological university in southern Taiwan, it may have a more generalized outcome if the participants are from different parts of this island. Finally, gender differences in both overall performance and major difficulty factors

are not observed in this study. This concern leaves a void that future research is recommended to fill.

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