AN ANALYSIS OF THE LISTENING ERRORS OF CHINESE UNIVERSITY STUDENTS OF ENGLISH AS A

FOREIGN LANGUAGE



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การวิเคราะห์ข้อผิดพลาดในการฟังภาษาอังกฤษของนักศึกษามหาวิทยาลัย ชาวจีนที่เรียนภาษาอังกฤษในฐานะภาษาต่างประเทศ



วิทยานิพนธ์นี้เป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปริญญาศิลปศาสตรมหาบัณฑิต สาขาวิชาภาษาอังกฤษศึกษา มหาวิทยาลัยเทคโนโลยีสุรนารี ปีการศึกษา 2563

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งานวิจัยนี้มีวัตถุประสงค์เพื่อ (ก) ค้นหาประเภทของข้อผิดพลาดในการถอดความของ นักเรียนจีนผู้ที่เรียนภาษาอังกฤษในฐานะภาษาต่างประเทศ (EFL) เมื่อฟังเสียงสื่อที่บันทึกไว้ (ข) เพื่อหาสาเหตุที่ทำให้เกิดข้อผิดพลาด โดยกลุ่มตัวอย่างเป็นนักศึกษาชั้นปีที่ 2 จำนวน 47 คน ที่ได้ จากการสุ่มตัวอย่างจากนักศึกษาวิชาเอกภาษาอังกฤษ ในมหาวิทยาลัยของจีน การรวบรวมและ วิเคราะห์ข้อมูลจะใช้ทั้งข้อมูลเชิงปริมาณและเชิงคุณภาพร่วมกัน โดยข้อมูลเชิงปริมาณ ทำการ รวบรวมผ่านกิจกรรมการถอดความการฟังของนักศึกษาเพื่อค้นหาประเภทของข้อผิดพลาด ข้อมูล เชิงคุณภาพรวบรวมจากการทบทวนความกิดหรือความรู้สึกของนักศึกษาและการสัมภาษณ์ เพื่อก้นหาสาเหตุที่ทำให้เกิดข้อผิดพลาดในการถอดความ

ผลการวิจัขพบว่า 1) มีข้อผิดพลาดในการถอดความ 7 ประเภท ได้แก่ ไวขากรณ์ การสร้าง กวามหมาย การรับรู้ หน่วยเสียง ข้อผิดพลาดแบบผิดเพียงกำเดียว กำที่นักสึกษาสร้างอย่างทันทีทัน กวัน และการสร้างกำใกล้เกียง 2) ข้อผิดพลาดในการถอดความมี 4 ประเภทที่กลุ่มตัวอย่างสร้างขึ้น เมื่อพวกเขาพึง 2 ข้อความ นักศึกษาสามารถจับใจความได้เฉพาะหัวข้อทั่วไปของเนื้อเรื่อง นักศึกษาเขียนรายละเอียดอื่นๆ ซึ่งไม่เกี่ยวข้องกับเนื้อหาของเรื่อง นักศึกษาสามารถเขียนใจความ หลักของเรื่องได้แต่รายละเอียดบางอย่างไม่ถูกด้อง และนักศึกษาเขียนเนื้อหาบางอย่างที่ตรงกัน ข้ามกับเนื้อเรื่องที่ได้ยิน 3) สาเหตุ 5 ประการที่นำไปสู่ข้อผิดพลาด 7 ประเภทข้างต้น ได้แก่ การ แทรกแซงจากภาษาแม่ ความล้มเหลวในการสร้างความหมาย การขาดความรู้ด้านกำศัพท์ การขาด ความรู้ด้านไวยากรณ์ และอัตรากวามเร็วบทความ

โดยสรุป ผลการวิจัยมีนัยสำคัญสำหรับการปรับปรุงการสอนการพึง รวมไปถึงการค้นพบ ปัญหาของนักศึกษา ได้แก่ ข้อมูลปัญหาของนักศึกษาผ่านกิจกรรมถอดความการพึง ข้อมูลการการ พึงรายบุคคลของนักศึกษา การออกแบบแผนการสอนหลังจากระบุความยากของข้อความ การ ออกแบบเนื้อหาเพื่อแก้ไขการพึงผ่านระบบการเรียนรู้ออนไลน์ที่จัดการด้วยตนเอง และได้ข้อมูลที่ ทำให้เข้าใจมากยิ่งขึ้นเกี่ยวกับการรับรู้และการเรียนรู้ของนักศึกษา นอกจากนี้ การศึกษานี้อาจให้ ข้อมูลที่มีก่าสำหรับนักวิจัยที่สนใจการวิเคราะห์ข้อผิดพลาดในการสอนฟังและการวิจัย



สาขาวิชาภาษาต่างประเทศ ปีการศึกษา 2563

Imm ลายมือชื่อนักศึกษา ลายมือชื่ออาจารย์ที่ปรึกษา___ ลายมือชื่ออาจารย์ที่ปรึกษาร่วม

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ERROR ANALYSIS/ LISTENING COMPREHENSION/CHINESE CONTEXT

This study aims (a) to investigate the types of transcription errors made by Chinese EFL students when listening to recorded audio materials; (b) to explore the causes leading to these errors. A mixed-method research design combining quantitative and qualitative methods was employed. 47 English majors from the second year in a Chinese university participated in the study. The quantitative data were collected through students' listening transcription activity to investigate the types of errors. The qualitative data were collected from students' introspections and interviews to explore causes leading to the transcription errors. The findings revealed that: 1) There are 7 types of transcription errors committed by the participants. These were grammar, meaningmaking, perception, phonemes, just one word wrong, improvised words, and creating an approximate word. 2) There are 4 types of transcription errors produced by the participants when they listened to the two passages. These were the students could only get the general topic of the passage, students make other details which are not relevant to this passage, students can write the main story of the passage, but some details are not correct, and students write something that are contrary to the passage. 3) Five causes were identified leading to these 7 types of errors, i.e., L1 interference, failure in meaning-making, lack of vocabulary, lack of grammar knowledge, and speech rates.

In conclusion, the findings have significant implications for improvements in

the teaching of listening comprehension. It includes discovering students' problems through listening transcription activity, the information of students' profile to access class performance, the designing of lesson-plan after the identification of text difficulty, the designing of listening corrective materials through a self-managed online learning system and acquiring a deeper understanding between students' perceptions and learning. Moreover, this study may also provide valuable information for researchers who are interested in exploring error analysis into their future scholarly endeavors in listening teaching and research.



School of Foreign Languages

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LIST OF ABBREVIATIONS

CET-4	College English Test-Band 4
EFL	English as Foreign Language
EA	Error Analysis
FLT	Foreign Language Teaching
ELT	English language teaching
KU	Kaili University
L2	Second Language
SLA	Second Language Acquisition
TEM-4	Test for English Majors Band-4
TL 🗾	Target Language



CHAPTER 1

INTRODUCTION

This chapter presents a brief introduction to the study which focuses on error analysis of listening comprehension of Chinese university learners. It concludes the background of the study, statements of the problem, purposes of the study, research questions, significance, definitions of key terms, and a summary of this chapter.

1.1 Background

Listening is a fundamental language skill, and it plays an essential role in English learning and communication. Both in the English classroom and talking with people, listening is primary. The L2 research results indicate that listening is one of the most essential skills in language learning because it is the most widely used language skill in daily life (Rost, 2002). The proportion of listening is more major than other abilities (reading, speaking, and writing). In a person's life, listening accounts for 40-50%; speaking, 25-30%; reading, 11-16%; and writing, about 9% (Gilakjani and Ahmadi, 2011). Especially in people's communication, it is necessary to understand and react to what the other person is saying. In other words, people spend 70% of their time in communicating. Listening helps people to receive information, communicate with others. Therefore, the importance of listening for communication is obvious.

As Field (2008) said, in English language teaching, listening skill enables learners to receive language input and facilitate the development of other language skills. According to Vandergrift (1997), listening is regarded as the most important language skill in language learning, and it is also a prerequisite for the development of other skills. and a prerequisite for the development of other skills. However, for a long time, foreign language teaching (FLT) in China has focused too much on reading and writing. Yet listening, as one of the most demanding skills for language learners, has not been given the notice it deserves and is still the weak point for English major students in Chinese universities in general and Kaili University (KU) in particular. The current situation of the English listening comprehension teaching in KU is not optimistic. Most teachers occupy most of the class time and only play the audio without giving students help in this process. Students are required to do a number of exercises by listening to the materials over and over again. Hence, there is a need to alleviate this serious situation. Besides, students pay less attention to listening comprehension ability and they believe it can be acquired easily by continually repeating, imitating, and practicing. The current situation for English listening comprehension teaching in Chinese colleges is not optimistic. After years of learning English from primary schools, students' listening skills are still poor. They have serious problems in English listening comprehension. Therefore, it is worth researching English listening to improve their poor listening skills and to ease the current serious situation.

In China, in recent years, lots of research studies have been done to identify the common errors students make in writing, speaking and lexical collocation in second language (L2) (Wu, 2008; Chen, 2013; Deng, 2018). These previous research studies indicate that by analyzing the errors in students' writing, speaking, and vocabulary collocation in L2 learning. Teachers and researchers can better understand the process of their learning. But only a few error analyses have been done concerning listening in

English. Thus, it is useful for investing the listening errors in Chinese EFL context.

The study and analysis of the errors made by L2 learners called Error Analysis (EA). EA has a long history dating back to the 40s and 50s. It was first put forward by Pit Corder (1967), defined EA as a basic technique of applied linguistics, focusing on the errors made by learners. It includes a comparison between the errors made in the target language (TL) and the TL itself. Later, Corder (1967) gave a detailed explanation of EA. Researchers and teachers use this procedure, which includes collecting samples of learner language, identifying errors in the samples, describing these errors, classifying them based on their nature and causes, and evaluating their errors. As Corder (1971) stated that error exists at every stage of the learner's acquisition of a language system. Errors are inevitable and are an indispensable part of the learner's learning process. The error can reflect the learner's learning process and provide a large amount of information to the learner. The purpose of EA is to find what the learner knows and does not know and ultimately enables the teacher to help them solve their problems.

Researchers interested in error analysis observed that error is meaningful for researchers, learners, and teachers. For teachers, they can get information from students' errors. This is helpful to teachers in three aspects. One is to correct students' mistakes, the other is to improve teaching, and the third is to address students' problematic areas (Alhaysoni, 2012). Consequently, EA can be regarded as a research tool in language teaching to investigate students' common errors for fixing the students' problems (Londono Vasquez, 2008). From what has been discussed above, it can be concluded that EA is a useful technique for exploring, describing, and revealing the problems of language learners. In the process of learning a language, it is valuable for doing the research of error analysis in English listening and exploring the reasons why learners made those errors.

1.2 Statement of the problem

Despite the importance and difficulty of listening, it has been alternatively overlooked. In China, the EFL (English as a foreign language) listening situation is not optimistic in college. Listening skills are not seen as the important parts of a course and teachers do not seem to focus on these skills while designing their lessons. (Zhu, 2012; Xiao, 2016). They even occupy most of their time in class without giving students help in this process and check their comprehension. Some teachers even think that it is easy to teach listening. (Zhu, 2012; Xiao, 2016). Because they only play the audio and test the student's comprehension in the class. Nunan (2002) stated that listening is a receptive skill, and the manipulation of receptive skills is not only difficult to achieve, but also requires the patience of teachers and learners. Teachers can help learners actively participate in learning. Gilakjani and Ahmadi (2011) also suggested that teachers should provide the students with kinds of listening comprehension, offer them a variety of inputs, and listening materials should be designed based on the students' level. But most of the teachers ignore these points while they are teaching listening. Even they just viewed listening as a form of testing.

In addition, L2 learners continue to discover L2 listening to be one of the most difficult skills to learn (Vandergrift and Goh 2012). Those at the lower proficiency and find L2 listening especially difficult. Many of them cannot cope with the fast speech rate and unable to recognize the words they already know. Even for more advanced learners, while they are listening, some of the sentences are difficult to understand. Grammatical errors, misspellings, speech recognition, and semantic errors are very common to see. (Huang and Liao, 2012; Xiao, 2016). These errors also show the problems in present teaching of the basic language skills. However, errors are an

unavoidable part of the process of learning a foreign language. The question is that why students make errors and how researchers and teachers utilize those errors to help students. As Corder (1967) stated errors are essential for learners. Making errors can be considered as a device the learner uses to learn. Teachers and researchers may help the learners improve their listening comprehension by analyzing the errors that they make.

Last, in the past three decades, the field of EA has progressed faster and faster. The researchers also realize that EA is a useful research way to the study of language learning and have done many related studies. But there are still some problems with the research. For example, these research studies have not formed a clear definition of error, a clear way to identify the type of error, and explaining the cause of the error. (Sarfraz, 2011; Ridha, 2012). First, most research studies focus on the errors in writing and speaking the language. (Zhang, 2014; Chen, 2015). Research about errors in listening has been ignored. Second, most researchers only apply the frame of EA without considering if such frame can still work. (Li, 2013; Dong and Li, 2016) Hence, this study is designed to analyze the errors made by the Chinese English major college students in their listening by EA technique.

In conclusion, there are three main problems of listening that need to be solved. First, in China, most teachers ignore the main points while teaching listening in class. Second, English listening is too difficult for learners in language learning. Third, few research studies about error analysis in listening have been done by researchers concerning English listening. (Hsieh, 2009; Fatimah and Hum, 2014; Emadi and Arabmofrad, 2015) Therefore, considering the above three points, it is worth doing the error analysis research in English listening. The present study aims at investigating the types of errors that Chinese students at KU made in English listening and to explore the reasons why learners make those errors, which is believed to help both the language teachers and the language learners.

1.3 Purpose of the Study

The purposes of the present research are listed as follows:

1) To investigate the types of transcription errors that Chinese students make when listening to recorded audio materials.

2) To investigate the reasons why students make those kinds of errors in listening to recorded audio materials.

1.4 Research Questions

This study is designed to answer the following research questions:

1) What kinds of transcription errors are made by Chinese university students major in English when listening to recorded audio materials?

2) What are the causes leading to transcription errors when Chinese university students major in English listening to recorded audio materials?

เทคโนโลยีส^{ุร}

1.5 Significance of the Study

In the field of EA, Many researchers have emphasized the significance of L2 learners' errors. Corder (1967) mentioned that errors are significant in three different ways. First, for teachers, errors can be revealed to the teachers the student's learning process. Second, they offer researchers with evidence on how a language is acquired and the strategies used by learners in language learning. Third, errors are meaningful to learners, because learners can learn from errors. EA as a research technique might be

appropriate for solving the listening problems as mentioned above. Therefore, EA is adopted for the present study, which attempts to help students and language teachers improve their listening skills and teaching situations. Simultaneously, it is believed that the results of the present study will benefit EFL students and language teachers. It will help teachers focus on those specific types of errors and find a positive way to facilitate the teaching of listening in English. EFL teachers are also more aware of students' errors, and review their teaching methods to improve students' listening comprehension.

Besides, few research studies have been conducted in EA of English listening. (Hsieh, 2009; Fatimah and Hum, 2014; Emadi and Arabmofrad, 2015) Hence, it is worth researching EA in English listening. It will offer students' information to the teachers. This includes students' learning process and specific problems in listening. Researchers also can realize that error analysis is a useful research way to the studies of language learning and they will do many related studies. This study investigates the types of errors that Chinese students will make in English listening. Furthermore, it aims to find out the reasons why students made those kinds of errors in English listening. It will attempt to provide a deep understanding of learners' errors in English listening. Finally, the present study may also provide other researchers' ideas for improving language learners' learning, especially on listening. It is also hoped that the findings from this study could provide valuable data and some suggestions, guidelines for further studies.

1.6 Definition of Key Terms

Listening Comprehension Vandergrift (2002) explained that listening comprehension is dynamic, active process of interpretation in which listeners add their

knowledge to decode what they heard. In this study, listening comprehension refers to the process of receiving, recognizing, encoding, and making sense of what we heard (those signals).

Error Corder (1982) explained error can be considered as evidence that the learner has not fully mastered the target language system. In the present study, errors refer to all types of transcription errors from students' listening transcription activity. They are different from the original transcripts and occur repeatedly and are not recognized by the learners.

Mistakes Corder (1982) mistake occurs when a learner masters command but simply forgets to apply his or her knowledge. This is the result of solving the problem, which prevents learners from accessing their knowledge of the target language rules, and causes them to fall back to alternative, non-standard rules that they consider easy to access. Mistakes are the products of accidental conditions such as memory loss, lack of attention, fatigue, carelessness.

Error Analysis Corder (1974) explained that what has come to be known as error analysis (EA) was related to the exploration of L2 learners' language. In the present study, the researcher will adapt Corder's (1967) error analysis model as a tool to collect, identify, describe, and explain students' errors from a listening transcription activity.

Chunks In this study, chunk refers to a basic unit of listening organization and a representation of naturally-spoken text which follows the rules of spoken rather than written language.

Transcription Activity In this study, students will perform two tasks. In task 1, students will be required to base on 3 conversations, which were segmented into chunks, and each chunk will be played to each student for a total of three times. The recording

will be stopped after each chunk and the participants will be asked to write down the words that they hear in each chunk. In task 2, students will be also required to listen to 2 passages and write a summary for a total of two times for each passage.

1.7 Summary

This chapter showed an introduction to the study. The research background was described firstly. And then the researcher introduced problems in EFL listening in China, the purposes of the study, the research questions, and the definitions of key terms. In chapter 2, related theories and studies will be introduced.



CHAPTER 2

LITERATURE REVIEW

This chapter includes a review of related literature to the present study. It begins with the definition of listening comprehension, the listening model, the introduction of transcription, chunks, and introspection. Then the definition of error, types of errors, cause of errors, and significance of errors are introduced. What follows this is an introduction to error analysis and interlanguage theory. Lastly, some previous studies of error analysis in listening, transcription activity, and chunks are presented.

2.1 Listening Comprehension

2.1.1 Definition of Listening Comprehension

When it comes to the definition of listening, many researchers try to give their answers. Coakey and Wolvin (1986) think that listening comprehension in a Second Language Acquisition (SLA) is the procedure of obtaining, participating in, and assign meaning to auditory stimuli. It includes a listener, who brings previous knowledge of the theme, language, and intellectual procedure to the listening task, the acoustic text, and the collaboration between the two. Hoven (1999) expands that constructive learning from auditory materials can also be extended to students' communication with texts, dialogues, tasks, and procedures.

In the following years, many researchers get a deeper and comprehensive understanding of listening. According to O'Malley and Chamot (1989), Listening

comprehension was viewed as an active and complex process, in which listeners must participate actively to match linguistic cues with his/her existing background knowledge. Learners decode and construct the meaning of listening material, which contains the act of interpretation and the reconstruction of meaning. Vandergrift (1999) also hold the same view. Listening comprehension is an active activity. This is a dynamic and complex process in which the listener must distinguish sounds, recognize vocabulary, grammatical structure, and interpret stress and intonation. Then listener retains the information he got from above. Littlewood (2000) listening comprehension is a process. Learners use their linguistic knowledge, common sense, special knowledge, and distinguish the ability to comprehend, analyze, summarize, remember, and rehearse the sounds they heard. That means listening comprehension is a complex information input. Listeners use the original information in the brain to receive new information they listened to. Then selected, processed, and stored to get the knowledge finally. It is also an important skill to judge students' language learning, appreciation, and communication ability. So it is essential to strengthen language learners' listening comprehension ability. Richards and Schmidt (2013) described listening comprehension as, the process of understanding speech in L1 or L2. It consists of topdown processing and bottom-up processing. All these definitions have the same feature that listening comprehension is an active processing procedure, information storage activity.

Generally speaking, listening comprehension is an active and dynamic psychological process of capturing language meaning in communication. The listener should play a very active role in decoding and making sense of the learner's speech based on his or her background knowledge and context.

2.1.2 Models of Listening Process

A large number of models have been put forward and developed in order to acquaint second language learners with the concepts and techniques of listening comprehension. The most influential ones are the three models, which include topdown models, bottom-up models, and interactive models. In the following part, the three models will be discussed one by one in detail.

2.1.2.1 Top-down Model

In top-down model, the process goes from meaning to language. Listeners try to construct the meaning of a message by using background knowledge, which might be in several forms. The background knowledge, maybe, provides knowledge about the topic of discourse, situational or contextual knowledge in the form of schemas and scripts, or knowledge stored in long-term memory. As a result, in topdown models, listeners can draw upon many kinds of knowledge, such as information in memory or upon an analysis of meaning-based contextual features, to project meaning. Brown (1999) said that the learners are someone who actively seeks meaning. Active listeners will use all relevant background knowledge, physical background knowledge of the discourse (direct, surrounding, location, time, etc.), speaker's knowledge (gender, age, known opinions), subject knowledge (and what the speaker may know or feel), etc. The listeners with this activation knowledge will process the incoming sound signal, which may simultaneously form sand to confirm his or her expectations.

A major principle of top-down models is concluded that listening comprehension contains a sequential process initiated by the listeners' background knowledge. Rost (1994) demonstrated this model as follows: (1) The listener activates possible knowledge, which is necessary to explain the incoming utterance

(2) The listener selectively pays attention to the utterance and explains the meaning of the preposition of the utterance through phonetic, syntactic, and lexical analysis.

(3) The listener interprets a possible pragmatic meaning of the utterance, that is, the speaker creates the specious connotation of the utterance in a specific context.

(4) The listener arranges the explained propositions into hierarchical representations to keep them in long-term memory.

Therefore, it is easy to see that the reconstruction of meaning is emphasized here instead of the decoding of the language forms. During the process of learning a foreign language for the first time, the learners tend to rely heavily upon topdown processing because it is unlikely for them to depend on the grammatical knowledge of the target language.

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2.1.2.2 Bottom-up Model

Carrell (1983) Bottom-up model is evoked by the incoming data. The data enter the system through the most appropriate, bottom-level schemata. For Nunan (1991) successful listening is to decode the individual sounds heard by the listener to deduce the meaning of words and then the meaning of utterances. In this model, listeners should focus on word meaning and grammatical characteristics, because the listener's vocabulary and grammatical competence provide the basis of bottom-up processing. The bottom-up listening process goes from language to meaning. Listeners use their knowledge and ability to process signals to understand the sound presented to the listener. That is to say, listeners use the information of the speech itself to try to understand the meaning.

Bottom-up model in listening assumes that all the information a listener needs to understand the text is contained in the structure of the input language (Richards, 2008). Listeners understand the meaning and usage of vocabulary, phrases, sentences, etc. to understand listening. The purpose of listening exercises is usually to train students' language analysis skills, such as identifying phonemes, finding keywords, identifying transition words in a discourse, and analyzing syntactic structures. Therefore, listening to a chunk as a unit can help students, especially English beginners who are not rich in vocabulary, to perform listening in a bottom-up model.

2.1.2.3 Interactive Model

Bottom-up and top-down processing often overlap. It is generally believed that hearing needs a combination of two forms of processing, and the two often happen at the same time (Graham, 2006). Rost (2002) explained this overlap as an interactive processing. That is to say, listeners use both linguistic knowledge (bottomup) and prior knowledge (top-down) to decode information. This is a continuum, in which the priority of each process depends on the learner's communication skills, knowledge, or listening goals.

Listening comprehension is an interactive process. It isn't basically a one-way stream of data to the brain after hearing a sound, but an interactive process of two-way communication, in which the listener's background knowledge plays a crucial part. The listener does not listen to the words one by one, but employments his or her background knowledge and different strategies such as forecast and affirmation to build meaning from the content. It is assumed that interactive model plays an important role in listening. Successful listeners are those who can handle listening effectively through bottom-up and top-down strategies.

2.1.3 Listening Comprehension and Transcription Activity

The view of listening comprehension adopted in this research is based on the currently generally-agreed view that listening is an interactive process. (Lynch, 2006; Vandegrift, 2007) Interactive where there is a shuttling of attention (and therefore meaning-making) between high-level units of organization (e.g. gist or main ideas) and low-level components such as words and chunks. The constant shuttling of the listener's attention leads to a kind of dynamic triangulation process where the hypotheses made by the listener about both gist and details (and their relationships to each other) are either confirmed or rejected. In this way, the gist and details are interconnected, and as the spoken text changes over time, the listener establishes a changing psychological representation of its possible meanings to enable him/her to decide what he/she believes the meaning to be at a specific moment in time.

In this study, while participant doing the transcription activity, they will be required to base on a presentation of natural spoken text, which is similar but not identical with that encountered in real life. The term "dictation" has sometimes been used to refer to this kind of activity, but this is not a dictation in the old-fashioned way of writing down the words of what is often a written text spoken aloud by a teacher but conforming to the conventions of written language. Chunk is meant to be a representation of naturally-spoken text which follows the rules of spoken rather than written language. In transcription activity, the text will be segmented into chunks (a basic unit of listening organization – See Appendix B) and each chunk will be played sequentially. The recording will be stopped after each chunk and the participants will

be asked to write down the words that they hear in each chunk. Adopting an interactive perspective to this specific listening process, participants will be in a position not unlike that of a natural listener who accesses spoken text sequentially chunk by chunk while, simultaneously, constructing an internal representation of its general and detailed meanings. Although the interactive process is not being entirely natural, it should be able to operate reasonably well (with the obvious difference that interruptions will occur regularly): Participants should be able to use high level inferences to inform their choice of transcribed words, and they will use their transcriptions to inform and reassess their high-level understandings of the text. While some breakdowns in transcription may occur because of the participants' lack of knowledge of specific words, or their poor foreign language listening skills, they will, most likely, still be able to maintain at least some high-level understandings of the subject and content of the listening textunless they are completely unable to construct any high-level understandings at all. If that happens, they will be reduced to guessing words which they can use to begin attaching high-level meanings (as can also happen in natural listening). In other word, participants will begin to guess words while they cannot understand the high level meaning.

Each chunk will be presented to each participant for a total of 3 times. After the second and third listening they will be given the opportunity to change anything in their earlier transcription of that chunk that they may wish to change. After the second transcript they will write any changed transcript into the second transcription box. After the third transcript they will write any changed transcript into the third transcription box. They will not change their previous transcript but leave them as they are so as to enable the researcher to determine how, if at all, the three transcripts are different from one another. The reason for choosing this approach is to enable each learner to confront the audio signal that they are receiving with the product of their personal meaning making mechanism. They try to produce coherence between what they actually hear and what they believe they hear while processing the spoken text to which they are listening. I.e. Lian (2004) said the act of comprehension can be thought of as an act requiring individuals to confront, contrast and contest their understandings and beliefs against the complexity of events unfolding around them, be they linguistic or nonlinguistic events." Listening a second and third time gives participants' the opportunity to re-structure the input auditory signals (to re-interpret it) in the light of possible new understandings that the re-listening has afforded them. In this context, one of the basic assumptions of perception is that people do not necessarily perceive the same signal in exactly the same way when they hear it more than once, partly because of changes in brain wave oscillations (Herrmann & Knight, 2001) and partly because of changes in our understandings either of the signal itself or of the upper-level inferential units. Therefore, in this study, the task of transcribing chunks allows for deep probing of the listeners' meaning-making mechanisms not only at the linguistic level but also in interaction with the higher level units of meaning to respect the high-level inferential aspects of the interactive model of listening in the context of a reasonably realistic task.

2.1.4 Listening Comprehension and Chunks

It is becoming clear that making sense of an audio stream cannot be based on a simple additive effect of perceiving phonemes that are then strung together into words, words into phrases etc. Attempting to process the "continual deluge of linguistic input" would quickly overwhelm an individual's memory and other processing resources, to create what has been called the "Now-or-Never" bottleneck (Christiansen & Chater, 2015, p. 1). The way in which the brain deals with this issue is to compress and recode linguistic input as rapidly as possible (Christiansen & Chater, 2015, p. 1). The ability to do this necessarily relies on an act of meaning-making in order to be able to perform the necessary tasks. It also requires what Christiansen & Chater (2015, p. 1) describe as "Chunk-and-Pass" processing. This is a process of organizing the input into increasingly complex representational levels: small chunks are combined with other small chunks to form a larger chunk which is then connected to other larger chunks to form even bigger chunks which are then processed simultaneously by the brain as complex rather than simple units thus enabling the production of meanings without loss of coherence/understanding due to memory decay (Christiansen & Chater, 2015, p. 5). Thus, in this perspective, language learning is construed as a process where the learner learns how to process grammatical and other phenomena rather than inducing the foreign language grammar into their own brains. The result is the generation an internal mental representation of the "meaning" of the text. Therefore, in this context, the definition of chunk is essentially dynamic and not amenable to monolithic definition. In its most general sense, it would mean something like a coherent grouping of language signals or their derived representations. Thus, the ability of a listener's brain to organize the incoming auditory signal into chunks at all levels of representation is critically important. From a theoretical perspective, it would appear that the higher levels of representation are likely to be dependent on each listener's operational history (Lian & Sussex, 2018) and therefore not amenable to inspection by an external observer. It remains an essentially personal and invisible phenomenon whose nature is hidden. A proficient language listener would have a good sense of how such chunking (at all levels) would work and would have memorized a range of low-level (and perhaps high-level)
language chunks enabling rapid recognition and processing of the stream of speech (McCauley & Christiansen, 2015). On the other hand, language learners may be unable to start the chunking process at the most basic level, and therefore being unable to reorganize the input at higher levels of representation. In a real sense, he/she would not know where to start.

The context of the current research investigates both top-down and bottomup processing (as part of the interactive model of listening adopted here). The transcription section of the research focuses specifically on bottom-up processing by investigating how learners perceive lower-level structures in relation to the participants' understandings of upper-level structures. However, given the above discussion of chunking, it would not make much sense to investigate separate words. Instead, learners will be given manageable and meaningful groups of words, described here as "chunks", which will provide (a) meaningful grouping of words, and (b) a helpful start to the multi-level chunking process described earlier. Presentation in chunks will be helpful to the language learners/participants, and, from a research perspective, chunks would be relatively easy to define objectively at the linguistic level (with no assumptions about processing at higher levels of representation). Furthermore, presentation in chunks would enable easy identification of errors as only one correct transcription is possible. As was pointed out earlier, the definition of a chunk is problematic. The following quote from (Krishnamurthy, 2003, p. 289) will illustrate:

> The exact dimensions and attributes of "chunks" as language processing units have not yet been firmly established. However, I would argue firstly that a chunk is primarily a lexical unit, and may represent units at various functional and formal levels in the grammar hierarchy; secondly, that it is a unit of memory; and thirdly, that it is necessarily variable in length, but is

unlikely to be longer than a clause-element, especially for written texts, where clauses and sentences may be very long.

For the purposes of the current study, given the definitions from both psychologists and language specialists, it can be accepted that the definition will be somewhat arbitrary. Therefore, a chunk will be defined here not in lexical or grammatical terms but more along the lines of a unit of memory (in coherence with the works of (Christiansen & Chater, 2015)). It is defined as a group of words/syllables (effectively an accent phrase) delimited by prosodic markers, i.e. pauses, in coordination with intonation and with only a single main accented syllable (not emphasized for emotional or other purposes) per group. From this definition, the number of syllables in a chunk will almost always approximate to George Miller's notion of "7 \pm 2" (George Miller, 1956). Besides, these chunks will be presented as described and the participants' transcriptions saved as described.

2.1.5 Listening Comprehension and Introspection

The term introspection refers to reflect, to see interior oneself. When formalized and applied as a research method, it implies verbalizing one's thoughts and thinking processes. Gabryś-Barkea (2011) Introspection is the process of externalizing what is happening in the brain at a specific moment, after completing an action, or after a period of time. Ideally, it requires that participants should speak out all the information in their mind without any pause. There are advantages and disadvantages of Introspection. Introspection can collect more complete and accurate data from participants. The disadvantage is that it increases the burden of students and extends the time to perform tasks. The researcher will modify the introspection method. It means that the researcher will ask students to write down their ideas and problems instead of verbalization. The reason for choose writing is that the purpose of this study is to collect sufficient data and the research participants belong to the university student can fully express their idea. This study adapts introspection to collect students' data in the listening tasks. The specific steps are as follows.

In this study, the researcher will modify the introspection method to get to know when and how the students thinking while completing the listening task. In order to ensure the validity of the task, introspection training is needed. (See table 2.1), first, the researcher will get the subjects to be familiar with the method as soon as possible. The researcher gives a specific explanation to the participant who volunteered to take part in this study. Second, the researcher tells participants not to be afraid of writing their problems after they listen to the audio file. Last, the researcher chooses an example for them to practice. By observing the participants doing the task, the researcher could tell whether the participants were competent in the task in using the introspection method.

The stages of doing introspection are listed as follows. (See table 2.1) First of all, the introspection method will be explained to the participants. They will be required to think about what is going through their heads as they doing the listening task. Then they write down everything that had appeared in their brain continuously in the whole listening task. Participants will write down their comments or problems during the listening task. If the participants think in Chinese, they should write in Chinese. If their thought is produced in English, they are supposed to verbalize in English.

Table 2.1 Steps in doing students' introspections

Steps	Details		
1. Introduction	Introspection method will be introduced to the students.		
2. Collection of students' comments	Students will be allowed to explain the reasons for what they do in their transcripts. The researcher will collect students' comments or problems from students' transcription of the chunks and summary passages tasks.		
3. Identification of students' comments	The researcher will identify and categorize students' comments or problems.		
4. Description of students' comments	The researcher will describe the categorized comments.		
5. Explantion of students' comments	The researcher will use students' comments to explain the transcription errors they made to answer research question 2: What are the factors leading to transcription errors when Chinese university students major in English listening to recorded audio materials?		

2.2 Errors in Language Learning

2.2.1 Definition of Errors

Different researchers have explained errors in various ways. They vary the definition according to their research purpose and perspectives. The different definitions given by researchers can be listed as follows,

As explained by Corder (1967), errors refer to the regular patterns in the learner's speech, which are always different from the target language model. For Liski and puntanen (1983), errors happen in more general situations, when the speaker fails to follow the pattern or manner of speech. Ellis (1994), an error can be seen as a deviation from the norms of the target language.

However, the above definitions do not clearly distinguish the errors in English listening. These definitions are too subjective and abstract to distinguish errors. For instance, the definitions above do not provide a specific explanation. Corder (1967) introduced the difference between systematic and non-systematic errors. Nonsystematic errors happen in one's L1, which is called 'mistakes'. Corder stated that mistakes are not important to the process of language learning. He identified the term "error" for the systematic ones, which happen in L2. Thus, in this study, the definition of error is closely related to the identification and classification of errors. It should be objective and concrete. In this study, error refers to students' listening transcripts, which differ from the original transcripts. It occurs repeatedly and is not recognized by the learners.

When researchers attempted to analyze the error made by learners, it is important to distinguish between errors and mistakes here. Many researchers have made different distinctions between errors and mistakes. According to Corder (1967), an error is caused by not knowing the proper rules or structure of the foreign language. It reveals the learner's incomplete knowledge of the language. Error is an inevitable by-product of the process of language learning. The learner's errors are important because they show the learner's progress and provide researchers with valuable evidence of the process of language learning. According to Dulay (1982), errors occur when the learner's surface structure changes in a particularly systematic way. Therefore, no matter what form and type of error, representing the damage of the target language.

As Norrish (1983) pointed out that error is a systematic deviation that occurs when learners fail to learn something and make errors all the time. He added that an ESL or EFL learner makes errors systematically. That's because he or she did not learn the correct form. He defined mistake as "inconsistent deviation." When a learner is taught a certain correct form, he/she uses one form inconsistently. That's called a mistake. This is supported by Richards & Schmidt (2013), an error is the use of a word, speech act, or grammatical item in such a way that it seems imperfect and incomplete learning.

Besides, according to Ellis (1997), the error reflects the gap in student abilities. They happen because the student does not know what is right. A mistake can be self-corrected, but an error cannot. There is two way for distinguishing between errors and mistakes. One is to check the consistency of learners' performance. If one person consistently uses a wrong form, it shows a phenomenon of a lack of knowledge, which is what we called "error". However, if one person sometimes uses the wrong form, it shows that the person knows the knowledge of the correct form and the wrong form just caused due to carelessness, this is called "mistake". The other way to distinguish between error and mistake is to ask learners to correct their deviant utterances. If they cannot correct them, the deviations are errors. If they can correct them successfully, the deviations are mistakes. Errors are systematic. They are likely to appear repeatedly without being recognized by learners. Only teachers or researchers would notice errors, but learners would not. (Gass and Selinker, 2001). As Corder (1974) said, an error is systematic while mistakes are characteristically unsystematic. That is possible to analyze the reasons the error arises and undoubtedly mistakes have no significance in the learning process. And this is also one of the reasons that the researcher chose to focus on students' errors and not mistakes in this study. In this study, the error as the main research objective will be analyzed and all the mistakes are not included in the consideration.

2.2.2 Classification of Errors

Classification of errors is an important process of error analysis. Corder (1967) first classified errors into "error" and "mistake". Errors are systematic. Mistakes

are not. Corder (1967) divided the errors into pre-systematic errors, systematic errors, and post-systematic errors. The pre-systematic errors mainly appeared in the early learning period. When the learners were not familiar with the rule, they want to communicate with others but they did not know how to do that. The systematic errors happened during the stage of language formation. In this period, systematic rules had formed, but the learners still could not understand them completely. The postsystematic errors appeared after the formation of the language system, which means that the learners had already grasped the complete rules and could use them, but they still did not get used to them. Corder (1971) changed the classification into "error of competence" and "mistake of performance". He pointed out that error comes from the lack of the target language knowledge, which could not be corrected by the learners themselves, while "mistake" caused by nervousness and tiredness etc. It was not systematic and the learners could correct it by themselves. Corder (1974) further expanded and enriched the classification of errors made by learners. He divided the error into a communication error and a reception error. According to the typical degree of error, Corder put error into group errors and individual errors.

Besides, other researchers have tried to distinguish or generalize the types of errors from different levels and perspectives. From the linguistic point of view, Richards (1971) made a systematical collection of the errors categorized them as the verb phrase errors, proposition errors, article errors, question sentence errors. Later, he categorized them as omission, addition, misuse, and inversion from the perspective of forms of errors. Later, he continued to identify six types of error: (1) interference, (2) overgeneralization, (3) performance errors, (4) markers of transitional competence, (5) strategies of communication and assimilation, and (6) teacher-induced errors. From the perspective of explaining the errors, Stenson (1974) stated that there are three main reasons for error, namely, (1) incomplete acquisition of the target grammar. (2) Exigencies of the learning/teaching situation. (3) Errors due to normal problems of language performance. Richards (1971) categorized Interlingual and Intralingual error. Interlingual (interference) error can be traced back to the first language interference. Interlingual errors happen when EFL learners cannot understand the rules of the target language and incorrectly apply the rules of their native language. Intralingual error can occur when the learner over-generalizes the rule of the target language due to their limited knowledge. This is supported by Richards & Schmidt (2013). The Interlingual error and the Intralingual error. These two elements refer to the negative influence of the speaker's mother tongue and the target language itself.

The Interlingual errors are errors caused by the learner's language background and mother tongue interference (also known as interference, linguistic interference, and crosslinguistic influence). Learners tend to use their L1 knowledge for some language features of the target language. Intralingual errors are errors that occur due to specific misuse of specific rules of the target language. The term 'interlingual' was first raised by Selinker (1969).

He used this term to refer to the intermediate language between the native language and the target language. Similarly, Brown (2007) also pointed out that there are two main sources of errors, namely interlingual errors and intralingual errors. Interlingual errors are caused by the interference of the mother tongue, and the latter occurs because of the incorrect application of the rules and lack of understanding of the rules. Dulay and Burt (1974) presented that there are four categories of classification error: linguistic category classification, surface structure classification, comparative classification, and communicative effect classification. However, Kavaliauskiene (2009) pointed out that the error transfer may be due to the learner's lack of necessary information in L2 or the ability to activate L2. There are two types of transfer: positive and negative. If the structures of the two languages are similar, this condition is called 'positive transfer' or 'facilitation', and if the structures of the two languages are different, this situation is called 'negative transfer' or 'interference'.

From the classification above serving different research purposes are unique in different ways. However, many of them do not make a distinction of errors in English listening. Some researchers in China (Dai and Shu, 1994; Dai and Wang, 1997) pointed out that the former classifications were not so effective. We needed to think about them again. Xiao (2001) put forward some principles for the classification of errors. She pointed out that we should follow two rules when classifying errors. One was that it would be better to make a separate discussion of errors when similarities outweighed differences. The other was opposite to the first one. Cai & Dong (2001) integrated and supplemented the former classification. Based on that, they put forward three main categories of errors, cognitive errors, linguistic errors, and behavior errors, and 20 subcategories. Meanwhile, they pointed out that the classification of errors should be independent, integrative, systematic, and objective. Although Cai and Dong's classification is complete to some extent. It is hard to use it in practical research because it is so complicated. Luo (2003) also put forward a way of classification of error, mistake, and pragmatic failure. But he did not highlight the important research point of error analysis, and also did not distinguish the listening error.

Many categories for identifying errors have been discussed above. It can be seen that errors in language learning can be classified from multiple perspectives and levels such as psycholinguistics, sociolinguistics, cognition, discourse, and learning behavior. The purpose of error classification is to promote the application of error analysis in SLA and find a way to solve the language error of L2 learners. James (1998) made some suggestions for the classification of categories, that is, the level of error should be defined after determining the level of error, such as when dealing with grammatical errors, the level includes noun errors, verb errors, adjective errors, adverb errors.

Ellis (1997) stated that classifying errors should help teachers or researchers to diagnose learners' problems at any stage and familiarize themselves with changes in error patterns that occur over time. Error is one of the inevitable things in language learning. It also brings us a lot of benefits. Students can know their errors through teachers' feedback. Then they make new attempts to get close to their desired goals. It can usually be determined that the error originated from improper processing (the phonemic, the lexical, or the syntactic level). Hence, in this study, the researcher will attempt to find how students listen to the chunk and passage through their listening errors.

2.2.3 Significance of Errors

Researchers are interested in errors because they are considered to contain valuable information about learner's language acquisition (Richards, 1974; Dulay and Burt, 1974). As Corder (1967) pointed out EA is significant in two aspects: (1) For teachers: (a) students' information: errors can provide some information about the learners' language ability for the teachers; they show teacher student's learning progress and tell the language teacher what needs to be taught; (b) In language teaching, learner's errors are regarded as an unavoidable part. It provides empirical evidence for the improvement of English teaching methods, syllabus design, and teaching tools in language classrooms. (2) For learners, errors are unavoidable, making errors can be seen as a device to help the learner identify their difficulties. Thus, learners can also learn from these errors. They can find the rules of language learning which will help them improve their language ability. (3) For researchers, errors offer the researcher clues about how a language is acquired or learned. Corder (1974) also pointed out that the study of errors is part of the exploration of the language learning process. It offers us a picture of the learner's language development and may provide us with instructions about the learning process. Selinker (1972) defined errors as red flags, which offer evidence of the L2 learner's knowledge. Likewise, Candling (2001) also subscribed to the view that errors are normal and unavoidable in language learning. He stated that the errors of L2 learners are important to the process of understanding the SLA. Anefnaf (2017), the occurrence of an error not only implies that the learner has not learned something, but also allows the linguist to know whether the applied teaching method is effective or needs to be changed. In other words, errors not only tell the teacher how much progress the learner has made in achieving the goal, but it also offers information about what else needs to be taught.

In conclusion, errors offer worthy information in three aspects. First, when teachers focus on the learners' errors so they can provide instruction respectively. Teachers can not only identify the level of students but also understand the problems encountered by students in language learning. Second, learners' errors can also be seen as an indicator of learners' mastery in the learning process. It shows what the learner has progressed in their learning. Moreover, learners are aware of their problems and then spend more time practicing the problematic areas. Learners are aware of their problems and then spend more time focusing on their problematic areas. Last, it will provide the researcher information on how students' learning progresses. Consequently, it is useful and meaningful for researching error analysis.

2.3 Error Analysis

Error analysis (EA) is a basic technique of applied linguistics that appeared in the1960s, is one of the useful ways to analyze students' learning. EA reveals learners' errors not only because of learner's mother tongues but also because they reflect some common strategies followed by possibly unknown features. The basic role of EA is to check the learner's output and to describe how the learning happens, including the correct and incorrect words. According to Corder (1974), EA has two objectives: one is theoretical and the other is applied. The theoretical objective is used to explain what and how learners learn when learning L2. The applied objective helps the learner to learn more effectively by using his/her knowledge for teaching purposes. At this point, Erdoğan (2005) suggested that applied objective in EA involves organizing remedial courses and designing appropriate materials and teaching strategies based on the results of theoretical objectives in EA.

From the above reviews, it can be concluded that the theoretical objective in EA serves to explain how a learner learns language. The applied objective in EA provides the methods to teachers for assisting their teaching. The two objectives also offer the information to discuss the research question in this study. Thus, the main focus of EA is to investigate learners' errors and offer an understanding of the process of second language acquisition (SLA).

EA has attracted the attention of linguists and has become an important part of

applied linguistics. Language transfer is considered the basic process of L2 learning in EA. EA deals with the learner's performance based on the cognitive process the learner uses to recognize or encode the input received from the target language. According to James (1998), EA focuses on analyzing the errors made by L2 learners by comparing the language acquired by the learner with the target language and interpreting the identified errors. AbiSamara (2003), EA can be regarded as a kind of language analysis, which focuses on the errors made by learners. Similarly, Nzama (2010), EA is a systematic language analysis of the errors made by learners. EA can be defined as the analysis of the errors produced by any language learner, especially a foreign language. EA also revealed that the error is not only due to the learner's native language, but also due to some common strategies (Corder, 1982; James, 1998). According to Corder (1982), EA has two justifications to study learner errors. It is related to the study of language teaching and the language acquisition process. Corder mentioned the reasons for teaching, fully understanding the nature of the error, and finding a systematic way to solve them. The theoretical justification claims that the study of learner errors is part of the systematic study of learner language. It is necessary to understand the process of ้^{วักย}าลัยเทคโนโลยีส์^{รุง} SLA.

2.3.1 Steps in doing Error Analysis

The process of learning English involves making and correcting errors. Corder (1971) stated that EA aims to analyze these errors through a systematic procedure that included collecting, identifying, describing, interpreting, and evaluating errors. Corder (1974) outlined the five steps of doing EA research: collecting learners' English samples; identifying errors; describing errors; explaining errors and evaluating errors.

Coder (1974) also explained describing the learner's errors mainly involves two aspects: comparison and classification. It compared the learner's wrong sentence with the sentence from the transcripts. The first thing to consider is what features the learner produces, which in turn divides the error into different types. Similarly, James (1998) also outlined five steps of error analysis in a case study: collecting error samples, identifying errors, classifying errors, distinguishing mistakes and errors, and diagnosing analysis in order to distinguish mistakes and errors. James' analysis steps are similar to Corder's (1974). Regarding what kind of errors should be analyzed. Duskova (1969) provided the following principle while doing EA. It should be based primarily on recurring system errors that can be easily traced to their causes, regardless of whether they reflect a lack of knowledge or whether they are due to their inappropriate habits. Richards and Schmidt (2013) listed the goals of EA. First, determine the strategies that learners use to help their learning. Second, try to find out the cause of the learner's error. In other words, investigate the motives behind making these errors as the first attempt to eliminate them. The third is to obtain information about common difficulties in 10 students' language learning or assist teachers in teaching.

In this study, the purpose of EA is to explore the types of transcription errors. For methodological consideration, the researcher will follow the 4 steps of EA in Corder's model (1974). (See more details in table 2.2 below)

Steps	Details
1. Collection of errors	Collecting students listening transcripts from the two listening tasks.
2. Identification of errors	Distinguishing and classifying the errors, comparing the student's transcripts with the original text. Anything that is different from the original text will be counted and listed.
3. Description of errors	Describe what kind of errors in students' transcripts. For example, errors including phoneme deletion, replacement, addition, etc. will be categorized and put together according to their different characteristics.
4. Explanation of errors	The researcher explores why students make these kind errors from their introspection and interview.

Table 2.2. Steps in doing error analysis

Since the fifth step is the evaluation of errors and it is usually regarded as a separate complex problem by many researchers. So this step is omitted because this study focuses on making a qualitative and quantitative analysis of the errors and explores the reasons causing errors.

2.3.2 Significance of Error Analysis

From the perspective of practical teaching, teachers and researchers have become aware of the long-term value of EA as the chief way to assess students' learning outcomes and the degree of matching between teacher syllabus and teachers. EA is valuable for teachers. It offers information about student errors, thereby helping teachers correct student errors and improve their teaching efficiency. Consequently, the effectiveness of English teaching can be achieved by identifying, categorizing, and analyzing the errors. As Corder (1967) explained, a systematic analysis of the errors made by language learners can identify areas in teaching that need to be strengthened.

Teachers can know the intensity of the difficulty or the size of the problem from errors. Banathy & Madarasz (1969, cited in Zhang, 2014). Thus, teachers should take a positive view of students' errors and should not see them as the learner's failure to grasp the rules and structures but should regard them as a learning process. According to Richards and Sampson (1974), at the level of classroom experience, EA will continue to provide a way in which teachers can assess students' learning and their teaching. Similarly, Michaelides (1990) pointed out that the systematic analysis of student errors offers valuable information to learners, teachers, and researchers. Weireesh (1991) stated that learners' errors are particularly important. EA is a valuable tool for identifying and explaining the difficulties faced by learners. He also explained that EA can be used as reliable feedback for teachers to design remedial teaching. Vahdatinejad (2008) believed that EA can be used to consider the learners' learning process and decide what kind of information need to be offered.

It can be concluded from these statements that the study of errors should be seen as good for both learners and teachers. EA can be used to determine the strategies used by learners in language learning, track the reasons for learners' errors, and obtain information about common difficulties in language learning or how to design teaching material. Thus, the researcher applies error analysis in the present study because of these reasons: First, it enables the researcher to investigate the types of errors that Chinese students made in their English listening. Second, it helps researchers understand the types of problems students encounter during the listening process. Last, it allows the researcher to explore the reasons that lead to listening errors in English.

2.4 Interlanguage Theory

Interlanguage is an important theory in the area of SLA. In 1969, it was first raised by the American psycholinguist Larry Selinker. Interlanguage is in recognition of the fact that L2 learners build a unique language system that relies on part of L1 but different from it and the target language. Selinker (1972) defined interlanguage as the independence of the L2 learner's system. It has a structural intermediate status between the native and target language. In other words, it refers to the language produced in the stage of a series of language transitions from the beginning of the mother tongue (L1) to the acquisition of L2. Corder (1967) proposed a similar concept, which is the transitional ability. Later Corder (1971) changed it to idiosyncratic dialect because he believed that the learners' language and rules are unique to each of them. Corder pointed out the language learning experience, environment and strategy are three important factors influencing learners' interlanguage. On the other hand, Nemser (1971) used an approximate system instead. From the perspective of Nemser, the learners' language system gradually approaches the target language system. Based on the interlanguage theory, he put forward three hypotheses. Firstly, the learners' language is a "patterned product" in a particular time of the approximate similar system. Secondly, at each stage of the acquisition process, the learners' approximation system existed in a variable continuum. Thirdly, the approximation systems of the learners at the similar stage are very similar to each other. The facts showed that the learners' approximation system is regular and general.

Interlanguage is a variant of a language between the mother tongue and the target language. It includes both the characteristics of the mother tongue and the characteristics of the target language. But it is an independent language system different from the two. Ellis (1989) pointed out that interlanguage has the following three characteristics. First, it is permeable, which is the rule of forming interlanguage. It is not unchangeable. The rules of mother tongue and target language have always influenced the development of interlanguage. Second, it is dynamic, as the learner constantly assumes and continuously verifies in the process of SLA. It gradually corrects the existing language system to adapt to the target language rules. The interlanguage system also evolves in this process. Third, interlanguage is systemic. The system is a relatively independent language system with unique speech, vocabulary, and grammar specifications. It exists in the process of the native language reaching the target language.

Brown (2007) pointed out that the development of interlanguage can be divided into four stages. First, it is the stage of arbitrary error. Second, it is the formation stage of interlanguage. Third, it is a systemic stage. Fourth, it is the stage of stability. The first two stages usually appear in the early stage of the learner's learning target language. The rules of the target language are not too familiar. It will not correct the mistakes themselves. In the third stage, the learner has a clear understanding of the target language system. But it has not yet fully grasped and occasionally makes some systematic mistakes. In the fourth stage, the learner has mastered the target language system. There are fewer errors. Even if there is a mistake, the learner can correct it according to the learning strategy.

In the process of English learning, Selinker (1972) said that the formation of interlanguage has its inevitable causes. It is inseparable from the psychological cognition process of learners. Later, Selinker continued to explain that the interlanguage theory errors are regarded as the symbols of the development of the learners' language system and the reflection of the learners' process of language learning. At this point, Researchers had already realized the significance of EA from a very early time. Corder

(1964) said that studies on errors can to some extent reveal the rules of learners' learning, to provide the teaching guide for teachers and the basis for constructing the error analysis model. In conclusion, students are always inevitably making errors in learning L2. Exploring the formation process of interlanguage is conductive to propose suggestions for improving language teaching.

2.5 Related Studies

2.5.1 Error Analysis in English Listening

Qiu (2007) investigated errors from a listening test for English majors in the Department of Foreign Languages of a University. The listening materials are weather reports, directions, telephone recordings, daily conversations, etc., they are closely related to the textbooks studied. The test questions are mainly subjective, with multiple choice and judgment questions accounting for only 10%. The test results showed that students made two types of errors in the listening test. (1). Receiving errors and expression errors. (Students are prone to commit errors when receiving information. One is distinguishing sound, and the other is confusing information. Many students cannot distinguish between "-teen" and "-ty" sounds, "/s/" and "/ Θ /", especially for the nasal sound "/n/" (2). Compositional errors and textual errors (students often make errors in understanding due to incorrect speech recognition, lack of keyword vocabulary, or incomplete grammatical knowledge). Hsieh (2009) used the data of a mock GEPT (General English Proficiency Test) to analyze the errors that 1039 subjects made from the perspective of listening comprehension text to understand the problems that hinder the test takers' listening comprehension. The problems were categorized into (1) unknown words, (2) clusters of sounds, (3) unfamiliar content, (4) lengthy sentences, (5) unfamiliar collocations (phrase), (6) syntax, and (7) idiomatic expressions. Fatimah and Hum (2014) did a case study to analyze the errors made by college students in listening. Participants included students from the English Department of Muhammadiya University. Qualitative data is obtained through interviews and observations during the listening teaching process. The descriptive analysis showed that students lack the opportunity to listen to native speakers, do not have the habit of listening and watching English programs, and have difficulties in coordinating listening and writing skills. Emadi and Arabmofrad (2015) applied an interactive dynamic assessment method to investigate the source of EFL learners' listening comprehension errors. The materials used in the sessions are listening repertoires extracted from the Listening Advantage Handbook 3. Qualitative analysis of the data showed that the learner's listening comprehension problems can be classified into (1) unknown words, (2) grammatical errors, (3) pronunciation, (4) lengthy sentences, and (5) unfamiliar phrases or collocations.

The above research studies on EA provide a good foundation for the development of EA. These empirical studies also provide us with research directions and references. However, studies that investigated error analysis in English listening are still limited. (Emadi and Arabmofrad, 2015) Moreover, most research studies on EA focuses on the study of college students' writing. They ignored the study of English listening learning errors. The analysis of writing and speech errors is quite fruitful. Hence, this study will provide more information for EA in college English listening.

2.5.2 Error Analysis in English Transcription Activity

As mentioned in 2.1.3, the term "dictation" has sometimes been used to refer to transcription. Many researchers have done research studies on dictation in different of perspectives. These studies are summarized in the table 2.3 below.

Researcher	Study	Participants	Results
Yin(2008)	Investigating students' errors in dictation by using questionnaires.	75 second-year college students from English major (67 girls and 8 boys).	According to the results of the questionnaire survey, the errors mainly include misspellings, word-missing, errors in the use of punctuation, and inconsistencies in subject-predicate.
Jin (2011)	Analyzing the problems in the short-term dictation practice	52 students in two classes of English majors	It is found that the errors in students' dictation practice have certain rules, including English pronunciation, vocabulary and grammar. Based on this, the corresponding dictation training strategy is proposed to effectively improve students' short dictation ability.
Lv (2011)	Investigating the types of errors in dictation.	24 Second year English major students.	The inability of distinguishing sounds errors and grammatical errors (Tense errors, noun plural errors, subject-predicate agreement errors, and compound adjective errors)
Hu (2012)	Investigating the types of errors in TEM4-dictation	Second year English major students	Sound recognition errors (liaison and reduced sound, omission of the words, unnecessary inserting of words, making words, and changing words) and grammatical errors (articles, personal pronouns, conjunctions, subject-predicate agreement errors, and omission of gerunds), errors in number
Huang and Liao (2012)	Types of errors from compound dictation in CET-4 test.	60 sophomore students	There are three main types of errors made by students in this dictation: grammatical errors, misspellings, and semantic errors. Grammatical errors are mainly reflected in terms of part of speech, subject-predicate consistency and sentence structure. The spelling errors are mainly reflected in the pronunciation of words. (including homophones and similar sound, accent, linking and weak form, some words are too long to write or exchange of words, etc.,) The semantic errors are mainly manifested in short-term memory and ability to make sentence, some sentences are far from the original meaning.
Ma (2014)	Types of errors in dictation	56 students in two classes of first year of English major	Sound recognition errors (failure in distinguish slimier syllables, omission of articles) Grammatical errors (tense, prepositions, subject-predicate agreement errors, singular and plural forms)
Wang (2015)	Analyzing of the errors in the dictation text	25 students	This study found that the learners have 14 types of dictation errors in 5 categories: lexical errors, grammatical errors, missing and adding errors, inferring errors, and ordering errors.

Table 2.3 A Summary of the results in the studies on analysis of students'transcription errors conducted in Chinese EFL context

Researcher	Study	Participants	Results
Xiao (2016)	Types of errors in 300 dictation transcripts.	The second year of English major students.	The researcher categorized the following types of errors: spelling recognition errors (students hear the word similar to other word; students cannot distinguish between linking reading, weak reading and unclear voiced consonants; Prepositions such as of, to, in, on and at.) and grammatical errors (Noun singular and plural, -s or -es; Verb third person singular -s or -es; Some adverbs have -ly; students cannot hear the -ed and -ed forms of the past participle).
Zhang (2017)	Investigating the dictation test.	53 sophomores from English major	The researcher analysed the reasons of error in the dictation, and later the researcher gave some suggestions for dictation and exams. Such as (1) to increase language output exercises and cultivate students' good habits of writing. (2) Pay attention to phonetic teaching and cultivate students' correct and good pronunciation learning habits. (3) Teaching strategy of shorthand method. Such as students can encode the information and make it into long-term memory.
Xu and Gong (2018)	Students' errors in a TEM-4 (Test for English Majors-4) dictation test.	of English major students.	It found that the highest type of error is a word-change, followed by a miss word. Both types of errors are classified as distinguish pronunciation errors. It also found the adding of wrong word. There are three reasons can be listed as follows, firstly. The student can't understand the new word and make the word according to the pronunciation. Secondly, students can't understand linking word, weak form word and other pronunciation rules, resulting in word-changing and missing words. Thirdly, students can't understand the full-text meaning and will not distinguish the similar pronunciation words.
Du (2019)	Aanalysing the common errors made by college students in TEM-4 passage dictation	College students	The researcher summarized the following errors. (1) Speech errors. (2) Grammar errors. Finally, she put forward suggestions for avoiding these errors. (1) Enriching students' language knowledge and strengthening basic language training. (2) Enhancing students' discourse awareness and enriching students' cultural background knowledge;

Table 2.3 A Summary of the results in the studies on analysis of students'transcription errors conducted in Chinese EFL context (Cont.)

As mentioned above, few studies about EA have done in English dictation. These studies showed EA in English dictation, which the teachers and researchers can better understand the process of students' learning. However, the method used in the TEM-4 dictation research in the past was only questionnaires (i.e. Yin, 2008; Jing, 2011). Some studies described the errors in TEM-4 dictation in a general way. (i.e. Wang, 2015; Xiao, 2016; Du, 2019). It can't be known many specific details from the article. Hence, this study will investigate College English listening errors in a dictation task, and also provide ideas for future error analysis research.

2.5.3 Error Analysis in English Chunks

Feng (2012) used comparative experiments to find that chunks can help students decode speech information and improve the efficiency of listening comprehension. From the perspective of cognition, Zeng (2012) explored the chunkbased cognitive model of L2 listening comprehension. He believes that chunk-based listening comprehension has obvious advantages over grammar-based listening comprehension strategies. Strategies for using chunks should not be ignored in listening comprehension. Yu (2013) investigated 84 students in two intact classes in the second year of English major in a normal school. The study required students to dictate a listening text, which was selected from the dictation questions of the 2010 English Majors' Level 4 Exam. The name of the dictation article was freshmen's Week, 157 words. After that, the author used SPSS software to statistically analyze a series of data collected. It revealed that grammar knowledge, chunk knowledge students' performance have a strong relationship with each other. Wang and Yang (2014) found that the use of chunk-based dictation has a significant effect on promoting learners' listening comprehension. They suggested that teachers should consciously teach the knowledge of the chunks in the classroom, such as collocation, semantic rhyme, word formation, etc., to cultivate sensitivity to the chunks.

Therefore, the above studies show that chunk-based dictation aims to effectively improve students' listening comprehension. However, there are few studies focused on chunk-based listening in college to improve students' listening by analyzing the English-majored u students' errors. Therefore, in this study, the researcher aims to analyze college English listening errors that are less studied, and also provide ideas for future error analysis research.

2.6 Summary

In this chapter, the definition of listening, listening models, transcription activity, chunks, and introspection were presented firstly. Then, the definition of errors, classification of errors, and significance of errors are also presented. Error analysis and interlanguage theory are adapted to support the present study. Lastly, previous studies of error analysis that related to listening, transcription, and chunks were presented.



CHAPTER 3

METHODOLOGY

This chapter consists of participants, research design, research instruments, data collection procedures, ethical issues of data collection, data analysis, and a pilot study for the research study. It ends with a summary of this chapter.

3.1 Participants

According to Punch (1998), all research studies involve sampling, which includes population and samples. A population in research means the total target group, that is, all students of English as a Foreign Language (EFL). A sample is an actual group that participates in the research. (E.g. selected subjects from the whole EFL students.) Thus, a sample should be representative of the whole population (Punch, 1998). In the present study, the target population refers to all Chinese EFL learners; however, "researchers are unable to study the entire population" (Shen, 2011). Therefore, the sample of this study was selected from the whole second-year English major students who took the CET-4 Test (College English Test 4) at a Chinese University in 2019. The reasons that the researcher adopted the CET as a proficiency test are that, firstly, CET-4 is nationwide and the most popular English test for undergraduates on account of its importance in finding jobs. Second, the CET-4 has been strictly created to achieve high standards in item production, pilot testing, item analysis, and item banking. The objectivity of the score and the consistency of the interpretation of the score has been ensured. Exam management also has been guaranteed. (Jin and Yang, 2008). Besides, many research studies indicate that CET has a valid and reliable level of testing (Ma, 2012; Yang, 2006). The reason that the researcher chose English majors as the main participants is that English major students have more time to study English than non-English majors. The reason that the researcher chose second-year English major students is that CET-4 is administered at the end of the first year. The CET-4 is organized twice a year, in June and December respectively. Therefore, sophomore students are familiar with CET-4 Test.

The CET-4 test was utilized to identify participants' English proficiency. There are two classes of 60 second-year students in grade 2018. CET-4 total score is 710 points. According to students' CET-4 score, 47 students whose scores are ranged from 450 to 550 were identified as intermediate level as well as participants. Therefore, 47 secondyear English major students were selected to participate in the study.

3.2 Research Design

According to the literature review in Chapter 2, in order to discover the types of errors that Chinese students make when listening to English audio recordings. This study adapted Corder's (1974) error analysis procedures. Students' introspections and semi-structured interviews were also applied for investigating the causes of English listening errors. Both quantitative and qualitative methods were employed in the present study. According to Robson (2002), a qualitative explanation could strengthen the quantitative evidence. That is, the quantitative interpretation with statistical data may enhance a qualitative description. Thus, the quantitative and qualitative methods were used to increase the validity of this study.

This study was conducted for about 5 days to collect data in a Chinese University. Only one group of 47 intermediate-level English major students from the second year participated in this study. In the present study, the listening materials of three conversations and two passages were taken from CET-4. The reasons that the researcher chose the listening material from CET-4 are that listening materials are matched with the CET-4 level. Students are familiar with the CET-4 test. It is useful to choose conversations and passages from CET-4 as the listening material. What's more, this study aims to investigate what kind of transcription errors do EFL students make when listening to audio material. Besides, it is expected that the listening materials would interest the students as they relate to daily life situations, such as campus life, traffic jams, traveling, sports and food. The length of each conversation and passage item is about 2 minutes. The reason for using audio materials is that learners usually focus on the stream of the sound. Inversely, learners are distracted while listening to the video file. Students listened to the audio files and perform two different tasks. Two tasks were conducted in order to answer two research questions in this study. In task 1 (See Appendix D), students listened to three conversations chunk by chunk chosen from the CET-4 test. (The 3 conversations were listed in Appendix A. The version of a chunk by chunks was listed in Appendix B). In task 2, students listened to 2 passages also chosen from CET-4 test (See Appendix E). The 2 passages were listed in Appendix C.

Task 1: At first, the researcher played the audio files for the students. Students listened to the recording chunk by chunk for a total of three times for each sequence. The reason that the students listen to three times for each chunk is in order to escape mistakes. As mentioned in chapter 2, mistakes are students' random performance caused by lack of attention, fatigue, or carelessness, students know it is wrong and can

self-correct mistakes. The first time, students had 30 seconds to transcribe what they thought they heard. Students then listened to a second time and rewrite, if necessary, they have 30 seconds to write one sentence on the computer about what they heard. Students listened a third time and, once again, rewrite if necessary. Students have 30 seconds to write one sentence on the computer about what they heard. They repeated this procedure for each conversation. Students did the introspections part after they listened to a chunk three times. Students try to write down in Chinese as much as they can about what is going through their head or problems while they were listening to the three chunks.

Task 2: At first, the researcher played the audio files for the students. Students listened to the passage to construct the gist of the text and get a general understanding of it. Then students have 5 minutes to write a summary of the story of the recording on the computer. They then listened a second time and, if necessary, students have 5 minutes to modify or rewrite their story. During the listening process, students have access to see what they have written before. Students did the introspection part after they listened to a passage one time. Students were required to write down in Chinese as much as they can about what is going through their head or problems while they are listening to this passage.

The researcher then identified and categorized the errors from the students' transcriptions. Those errors were classified into different types to investigate what kind of transcription errors do EFL students make when listening to recorded materials in English. The researcher collected the data from the introspection to investigate partially the reasons why students made those kinds of errors.

3.3 Research Instruments

Three research instruments were applied in this study: (a) Transcription activity (task 1 and task 2), (b) Students' introspection, and (c) A semi-structured interview. In order to answer the first research question of the study, students' transcription errors were collected and analyzed. To respond to the second research question, the reasons why students make those kinds of listening errors were collected from students' introspections and a semi-structured interview (See Table 3.1 below). These supplemented the researcher's analysis of the errors to the extent possible.

Table 3.1 Summary	of research	questions an	d research	instruments

Research Questions	Research Instruments
1) What kinds of transcription errors are made by	Students' transcription activity
Chinese university students major in English when	(Task 1 and 2)
listening to recorded audio materials?	
2) What are the causes leading to transcription errors	Students' introspections;
when Chinese university students major in English	Semi-structured interviews
listening to recorded audio materials?	

3.3.1 Students' Transcription Activity

47 students participated in this study to do the transcription activity, which includes two listening tasks.

In task 1, students were required to listen to spoken text (three conversations), which is similar to but not identical to that encountered in real life. Spoken text is segmented into chunks (See appendix B) and each chunk is then played sequentially for a total of three times. The recording is stopped after each chunk and the students are asked to write down the words that they hear in each chunk. After the second and third listening, students are allowed to change anything in their earlier transcription of that chunk that they may wish to change.

In task 2, students were required to listen to 2 passages (See appendix B) that they are expected to write down the main idea of the passage. Each passage is presented to each participant two times. The recording is stopped after each time and the students are asked to write down the general idea that they hear in the passage. After the second and third listening, students are allowed to change anything in their earlier transcription of that passage that they may wish to change.

3.3.2 Students' Introspections

Introspection is one of the effective methods used frequently to collect and analyze data in the study of psychology and cognitive science. Researchers can use students' introspections to collect and measure the participants' thoughts. In this study, students' introspections refer to a research method in which participants rethinking their process while they complete a task. Participants were required to write down their problems while they were listening to a chunk and a passage. Ideally, it requires that participants should write down all the information in their brain without any pause. Participants will be instructed like this. "Please rethink what comes to mind while you try to solve the problem. Try to write down your thought. You can decide on your own what you write and how you write it." Students' introspections have obvious advantages in that they would enable participants to focus on what they were doing at a particular time and simultaneously write down it.

The reasons that the researcher applies students' introspections are that, firstly, participants can write their thinking of problems in a more relaxed and equal setting than that in a face-to-face environment. Secondly, it can naturally reflect participants' opinions on this research. Last, based on the purpose, the researcher needs students to think of their problems while they were listening to the chunks and passages. Introspection is a convenient tool for research. Students may feel relaxed and have more time to respond to the protocol questions. In order to check whether the introspection at the present study could measure the design purpose, all the protocol items were examined by experienced experts who are teachers in a Chinese university. Students' introspections were conducted in Chinese, allowing participants to express their opinions freely. After that, the key information of the introspections was transcribed into English.

3.3.3 Semi-structured Interviews

In this study, semi-structured interviews were conducted to collect more data from students, aiming to investigate the problems they encounter while listening to chunks and passages.

According to Nunan (1992), Interviews are categorized into unstructured, semi-structured, and structured interviews. A semi-structured interview refers to a simple conversation between the interviewer and the interviewee, which contains guiding questions that the interviewer aims to find. Semi-structured interviews are applied to suit the goals of this research because they are in order to obtain information about the reasons why learners have difficulties in listening to chunks. And to find out if any other listening difficulties would affect the learner's listening of the passage. In addition, by providing learners with the opportunity to report in their own words, it may gain insights into their understanding of some of the difficult listening to chunks and passages. The learner's voice is very valuable for us to understand their difficulties in listening. Thus, the semi-structured interview was adapted in the present study.

The semi-structured interview questions in this research were adapted from Dai (2017). Because Dai's research aims to explore the effect of chunk-based dictation

exercises on improving the listening of junior high school students. This is similar to this study. The interview was conducted after two listening tasks. 10 participants from the group were randomly selected to participate in the interview. A list of seven questions is provided in Appendix F to help the interviewer to conduct the interview. Students took 10 to 15 minutes to answer the interview questions. The interview was conducted in Chinese, which made it easier for participants to express their opinions. In addition, the interview process was recorded and key information was transcribed into English.

To check whether the interview questions in a semi-structured interview could measure what they were supposed to be designed for, the questions were sent to two Chinese EFL teaching experts. One is a full professor who had more than 10 years' English teaching experience. The other is an associate professor who had more than 15 years' English teaching experience.

3.4 Ethical Issues

Data collection requires researchers to follow the ethical standards, principles and respect the participants. To avoid ethical issues, permission was obtained from the school principals as well as from the participants before collects the data. In addition, the participants fully know the procedures involved in the study. The research purpose was explained to the students clearly. Then, the participant consent forms were signed (see Appendix G). The confidentiality and protecting the anonymity of the participants were guaranteed. It can also be assured that their information was not provided to anyone who is not directly involved in the research.

3.5 Data Collection Procedures

This section describes the process of conducting the entire research. This study was conducted 5 days (each day about 2hrs) to collect data in a Chinese university. The participants were involved in this listening session in the multi-media classroom. Data were obtained from the two listening tasks of three conversations and two passages as explained in 3.3.1. The data were collected through the website called Moodle and stored in a database automatically. Then the researcher collected, read, analyzed, and summarized data from students' transcripts. By analyzing the data from Moodle, the researcher identified and categorized students 'listening errors and the reasons, which can reveal the in-depth reasons for helping answer research question two. Table 3.2 shows data collection procedures.

Data collection Instruments	Tasks	Listening materials	place	Time
Transcription	Task1:	Conversation 1	Multi-media	1hr 55mins
Activity;	3conversations	Conversation 2	Classroom	1hr 58mins
Introspection; Semi-		Conversation 3		2hrs 7mins
structured interview			10	
Transcription	Task 2:	Passage 1	Multi-media	20 mins
Activity;	2 passages		Classroom	
Introspection; Semi-	ารายแกง,	Passage2		20 mins
structured interview				

 Table 3.2 Data collection procedures

3.6 Data Analysis.

After collecting data through quantitative and qualitative methods, the data were analyzed to reveal the results of the research. This section presents the procedures of data analyses including two listening tasks of three conversations and two passages, and students' introspections. The details of the data analysis are explained below.

3.6.1 Data from Students' Transcription Activity.

3.6.1.1 Data from Students' Transcription Activity in Task 1

The researcher adapted Corder's (1974) analysis steps to analyze students' transcriptions. However, the fifth step evaluating errors is usually regarded as a separate and complex issue by many researchers. Moreover, this study focuses on making a qualitative and quantitative analysis of the errors and explores the reasons for causing errors. So the fifth step is omitted. The other four steps are presented as follows (see table 3.3):

Table 3.3 Four steps for analyzing students' transcriptions activity in task 1

Steps	Details
1.Collecting	As mentioned in 3.5, students spent about 6hrs performing task 1 in a multi-
errors	media classroom. In task 1, students were required to listen to 3
	conversations, which were segmented into chunks (See appendix B) and
	their answers were collected through software called Moodle. Their
	transcriptions were automatically stored and can be downloaded to the
	excel sheet version for identifying students' errors later.
2.Identifying	There are about 280 words in each conversation; it is expected that 47
errors	students would transcript 39,480 words in total. The researcher identified
	and distinguished the errors. Students' transcriptions from task 1 were
	compared with the original text (See appendix A) and content that is
	different from the original text was calculated and listed.
3.Describing	The researcher described the collected errors. All identified errors in
errors	chunks were categorized into types. Descriptive statistics were generated
	to cluster the results and describe the distribution of errors. For example,
	errors in grammar, transition, and reduced sound errors were classified
	according to their different characteristics. Then all the identifying errors
	were listed and calculated into percentages.) The frequency of each type of
	error was reported in percentage by using this formula (% of Error Type
	$Frequency = \frac{Total Number of Errors in One Type (n)}{Total Errors (N)} \times 100$). The results
	were summarized into types of transcription errors, which include each
	error type and its frequency as derived from the students' transcriptions to
	answer the first research question.
4.Explanation	The researcher inferred the students' reasons for errors from the students'
of errors	introspections and interviews. This enabled the researcher to answer the
	second research question.

In order to ensure the reliability of the analysis results and the types of transcription errors, two examiners rated the students' transcriptions. One of the examiners is the researcher of this study, and the other examiner is an experienced teacher who has more than ten years of college English teaching experience and has participated in the CET-4 (College English Test Brand 4) grading work for many years. To ensure internal reliability, the two raters discussed the identifying errors and practiced identifying the transcriptions of other students who were not involved in the research.

3.6.1.2 Data from Students' Transcription Activity in Task 2

The researcher also adapted Corder's (1974) analysis steps to analyze students' transcriptions in 2 passages as explained in 3.6.1. The four steps are presented as follows (see table 3.4):

Steps	Details
1. Collecting	As mentioned in 3.5, students spent about 1hr performing task 2 in a multi-
errors	media classroom. In task 2, students were required to listen to 2 passages
	(See appendix B) and transcript their answers on software called Moodle.
	Their transcriptions were automatically stored and can be downloaded to
	the excel sheet version for identifying students' errors later.
2. Identifying	There are about 180 words in each passage; it is expected that 47 students
errors	would transcript 16,920 words in total. The researcher identified and
	distinguished the errors. Students' transcriptions from task 2 were
	compared with the original text (listening material) and the general idea
	which varied from the original text was counted and listed.
3. Describing	The researcher described the collected errors. All identified errors in 2
errors	passages were then categorized into types. Descriptive statistics were
	generated to cluster the results and describe the distribution of error. Then
	all the identifying errors were counted and calculated into percentages.
	The frequency of each type of error was reported in percentage by using
	this formula (% of Error Type Frequency =
	Total Number of Errors in One Type (n) $\times 100$). The results were
	Total Errors (N)
	summarized into types of summary passage errors, which include each
	error type and its frequency as derived from the students' transcriptions to
	answer the first research question

Table 3.4 Four steps for analyzing students' transcriptions activity in task 2

Steps	Details
4. Explanation	The researcher inferred the students' reasons for errors from the students'
of errors	introspections and interviews. This enabled the researcher to answer the second research question.

 Table 3.4 Four steps for analyzing students' transcriptions activity in task 2 (Cont.)

In order to ensure the reliability of the analysis's results the types of summary passage errors, two raters examine a student's transcriptions. To ensure internal reliability, the two raters discussed the identifying summary passage errors and practiced identifying the transcriptions of other students who were not involved in the research.

3.6.2 Data from Students' Introspections.

Students' introspections were used to collect the qualitative data for this research. It immediately followed by students listen to a chunk three times and a passage one time. Then the researcher adapted Corder's (1974) analysis steps to analyze students' introspections (See table 3.5).

Table 3.5 Four steps for analyzing students' introspections

Steps	Details
1. Collection of	Students are allowed to write down problems they encountered while
students'	they listen to chunks and passages and explain the reasons for what
comments	they did in their transcriptions. Their comments or problems were
	automatically stored and can be downloaded to the excel sheet version
	for identifying students' reasons later.
2. Identification of	The researcher identified and categorized students' comments or
students'	problems. Then researcher coded information related to the research
comments	questions.
3. Description of	The researcher described the categorized comments into different
students'	points of view according to the research questions.
comments	
4. Explantion of	The researcher summarized and synthesized students' comments and
students'	opinions. Then the researcher used students' comments to explain the
comments	transcription errors they made to answer research question 2: What
	are the causes leading to transcription errors when Chinese university
	students major in English listening to recorded audio materials?
In order to ensure the reliability of the analysis's results the students' reasons, two raters discussed a student's problems. To ensure internal reliability, the two raters discussed the identifying factors and practiced identifying the reasons of other students who were not involved in the research.

3.6.3 Data from Semi-structured Interview

In this study, a semi-structured interview was conducted with 10 participants. The collected data were analyzed qualitatively. The procedures of analyzing the data were processed as follows.

Table 3.0 Four steps to	analyzing students interviews
Steps	Details
1. Collection of	The researchers carefully organized interview coaching questions
students' comments	to identify and distinguish topics and themes, in order to find an
	easy way to view the data. Students are required to answer the
	questions listed in Appendix D.
2. Identification of	The researcher identified categorized students' answers. Specific
students' comments	words and similar ideas were classified into the same topics and
	themes.
3. Description of	The researcher described students 'interview answers.
students' comments	
4. Explantion of	The researcher used students' answers to explain transcription
students' comments	errors they made to answer research question 2: What are the
10	causes leading to transcription errors when Chinese university
	students major in English listening to recorded audio materials?

Table 3.6 Four steps for analyzing students' interviews

In order to ensure the reliability of the analysis's results of the students' reasons, two examiners rated a student's interview answers. To ensure internal reliability, the two raters discussed the identifying factors and practiced identifying some interviews of other students who were not involved in the research.

3.7 Pilot Study

A pilot study is a small-scale study conducted before a full-scale study, and then the feasibility, time, and cost of the full-scale study are evaluated. According to Nunan (1992), conducting a pilot study is necessary and useful, because it might tell you where the main study might fail in advance. Where it may not follow the research protocol, or whether the proposed method or tool is inappropriate or overly complex. A pilot study is not only promoted the main study's quality and efficiency but also reveals difficulties in the design of the methods and procedures of the study. Therefore, in the present study, a pilot study was conducted before the main study.

3.7.1 Participants

Five students of English majors from a Chinese university participated in this pilot study. They are selected according to convenience and availability. All of them are English majors. Participants in the pilot study were taken part in the main study.

3.7.2 Research Instruments

According to 3.3, the research instruments include transcription activity, students' introspections, and interviews in the pilot study.

3.7.3 Data Collection Procedures

The pilot study started in August 2019. Five students spent 5days carrying out the listening audio files. They listened to 3 conversations and 2 passages from the CET-4 test. The data collection of EA was based precisely on the present study. The data (as mentioned in 3.4) was been collected as follows:

In the beginning, the researcher gave specific instructions for the two listening tasks. Students were informed that they could ask if they had any questions. In task 1, there are three conversations. In task 2, there are 2 passages. On the first day, 5 students finished task 1 of conversation 1. They listened to the conversation 1 chunk by chunk a total of three times. It took about 1hr 40 minutes for a conversation. Students took 20-30 seconds to finish a chunk. Students' introspections were conducted immediately followed by listening to a chunk three times. They were informed that the main focus is on their thoughts and write down what they thought at that time. On the second day and third day, 5 students finished conversation 2 and conversation 3. On the fourth day, 5 students began to do task 2. The researcher introduced the purpose and the requirements of task 2. Task 2 of listening to a passage a total of two times was distributed to students. Then students wrote a summary of the passage on the computer within 5 minutes. But 2 students required a few minutes to type the answer on the computer, so the researcher extended 3 minutes for them. Then they listened a second time and modify or rewrite their summary. On the fifth day, students finished passage 2. (See Table 3.7)

Changes	Pilot study	Main study
Data collection time	5 days	25 days
15	(each day about 1 hr 40 mins)	(each day about 2hrs)
Listening materials	3 conversations and	3 conversations and
	2 passages	2 passages
Time for writing a chunk	30 seconds	30 seconds
Time for writing a passage	5 minutes	8 minutes
summary		

Table 3.7 The changes between pilot study and main study

3.7.4 Data Analysis

Students' transcriptions were collected and errors were noted. These errors were easy to identify as only one correct answer is possible. While error analysis may not be new, an error analysis of this kind is, in fact, original in scope. As the researcher wishes to avoid any bias due to re-classification of errors, presuppositions about the nature of the errors collected, or pre-judging of errors, no arbitrary set of errors were produced as a rubric for identifying errors before the conduct of the analysis. Instead, a qualitative analysis approach was used where, after the collection of all errors, errors were clustered, classified, and analyzed according to likely origin. Corder's (1974) error analysis model was used: collection, identification, description, and explanation. Powerful help in the error analysis comes from the introspection comments made by the students themselves on completing their transcriptions of each chunk. The semi-structured interview was held to refine further the investigator's preliminary findings. In order to help triangulate results, the researcher sought assistance from other experts/researchers to establish the accuracy of the findings.

3.8 Summary

This chapter described the research methodology of this research. Firstly, it presents the participants and the research design and then followed by research instruments. In addition, ethical issues, the data collection procedures, and data analysis are explained. Moreover, transcription activity, students' introspections, and students' interviews were used to collect the data. Last, a pilot study is presented. In the present study, Forty-seven second-year English major students participated in the study. They were assigned to listen to the audio files and perform two different tasks. In the next chapter, the detailed results and discussion will be presented.

CHAPTER 4

RESULTS AND DISCUSSION

This chapter presents and discusses the results of the present study. According to the research purposes and research questions of the present study, both quantitative and qualitative data analyses were employed in analyzing the data from error analysis, students' introspections, and semi-structured interviews. The results of the study are reported according to the order of the research questions. Then it presents a discussion based on the results. The discussion includes the types of transcription errors made by students when listening to recorded English audio materials. The discussions also include the reasons why students make those kinds of errors when listening to recorded English audio materials as determined by the findings from the students' introspection and interviews. Last, it ends with a summary of this chapter.

4.1 Types of Transcription Errors in Chunks

This section reports the results and provides a discussion of the type of errors from students' transcription activity. As shown in Table 4.1, all transcription errors were calculated and categorized into types. The frequency and percentage of each type were calculated. All chunks were marked as chunks with errors or chunks without errors, and their total numbers and percentages were calculated.

Chunks	Total	Percentages (%)
1. No-errors	326	2.95
2. Errors	10,708	97.05
Total	11,034	100

Table 4.1 Summary of chunks and the number of overall errors

Table 4.1 shows that students listened to a total of 11,034 chunks. There were 10,708 (97.05%) errors and 326 (2.95%) no-error chunks. Lower than 3% of chunks were not errors. This suggests that students heard whatever they heard but could not construct it. This is a very large problem that needs to be fixed. Hence, it is necessary for teachers to help students develop their listening skills.

For more detailed results, the 10,708 errors were categorized into 12 types of errors. Then, a frequency analysis was used to classify the types of errors and calculate their percentages (See table 4.2).

Error type	Examples	# of Errors	Percentage (%)	Rank
E1. Tenses	Incorrect: <u>I just</u> finished	234	2.19	9
C	Correct: <u>I've just</u> finished	100		
E2. Articles.	Incorrect: Yes, that is wonderful idea	618	5.77	4
	Correct: Yes, that is <u>a</u> wonderful idea	0		
E3. Demonstrative	Incorrect: about this things	350	3.26	5
pronouns.	Correct: about these things			
E4. Prepositions.	Incorrect: What type food	268	2.50	7
	Correct: What type <u>of</u> food			
E5. Conjunctions.	Incorrect: <u>on</u> the subject	221	2.06	10
	Correct: but the subject			
E6. Nouns.	Incorrect: the best <u>place</u> to go	247	2.30	8
	Correct: the best places to go			
E7. Meaning-making	Incorrect: How the things going	2439	22.78	3
	Correct: How is everything going			
E8. Perception	Incorrect: if <u>you</u> like	121	1.12	11
	Correct: if <u>you'd</u> like			

 Table 4.2 Summary of 12 transcription errors types and frequencies

Error type	Examples	# of Errors	Percentage (%)	Rank
E9. Phonemes	Incorrect: you <u>say</u>	274	2.55	6
	Correct: you see			
	Incorrect: my <u>nose</u>			
	Correct: my <u>notes</u>			
E10. Just One word	Incorrect: they have fun	2699	25.20	2
wrong	Correct: and have fun			
E11.Improvise words	Incorrect: is natures	3216	30.03	1
	Correct: his lectures			
E12. Creating an	Incorrect: <u>wonde<mark>rfu</mark>l</u>	21	0.20	12
approximation word	Correct: <u>one of</u>			

 Table 4.2 Summary of 12 transcription errors types and frequencies (Cont.)

From the above table, there are 12 types of transcription errors. E1 means students who have problems with tenses. E2 means students who have problems with articles. E3 means students who have problems with prepositions. E5 means students who have problems with conjunctions. E6 means students who have problems with nouns (singular and plural forms.) E7 means students can transcribe few words, but still failed to identify the whole chunk. E8 means students who have problems with the Perceptions. E9 means students who have problems with the following phonemes: /i:/& /et/; /ts/ & /z/. E10 means students who can transcribe most of the chunks, but failed to identify just one word. E11 means students attempt to make answers sound like the original text without considering the context, even if the words and grammar are wrong or non-existent. E12 means students who can write the correct answer on their first attempt, but change it (incorrectly) on their second or third attempt.

4.1.1 Quantitative Analysis of Students' Transcription Errors.

In order to know and understand each student's problem better, the researcher created student profiles to see more specific details of the 12 types of errors (See table

4.3). The profiles provided information to teachers about what students did in the transcription activity and what kinds of help students need.

Туре	F 4		53	Б4		Бć		EQ	БО	F10	D 11	F14	T (1
C 4 J	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12	Total
Students S1	7	18	7	3	2	1	46	2	5	42	93	0	226
<u>S1</u> S2	6	23	9	6	2	8	53	3	6	60	65	0	220
<u>S3</u>	7	12	9	4	6	4	46	0	4	52	73	0	241
<u>S4</u>	2	12	9 7	4 9	5	7	64	1	8	52	58	1	217
S5	6	20	5	8	5	8	53	3	4	<u> </u>	56	0	227
S6	5	11	9	7	5	9	40	3	7	77	58	0	237
<u>S7</u>	7	15	7	7	8	4	55	2	4	66	59	0	231
<u>S8</u>	4	13	8	7	2	7	49	3	4	59	55	3	215
<u>S9</u>	4	15	6	5	5	5	6 0	3	7	57	59	1	213
<u>S10</u>	9	20	6	8	-2	9	55	2	6	57	62	1	237
S10 S11	5	17	8	2	6	4	52	2	6	65	56	0	223
S12	7	15	8	8	3	10	46	3	3	58	54	0	215
S13	3	21	11	5	4	6	52	4	9	60	67	0	242
S14	5	15	5	6	4	8	46	2	7	64	65	0	227
S15	3	16	7	8	4	2	83	2	4	54	86	0	269
S16	5	13	8	5	5	7	57	7	6	69	70	0	252
S17	6	12	9	9	7	6	58	4	5	65	44	1	226
S18	4	12	10	6	3	1	53	2	6	44	105	0	246
S19	2	11	7	7	6	4	64	3	6	55	70	0	235
S20	3	16	8	8	5	3	53	3	8	72	55	1	235
S21	3	11	7	6	6	6	52	2	7	58	63	2	223
S22	11	16	8	4	7	5	56	2	5	64	60	1	239
S23	4	6	10	2	5	5	46	3	7	71	65	0	224
S24	7	18	8	77	84	5	71	3	4	55	63	0	245
S25	2	13	4	10	4	1	43	2	3	45	86	2	215
S26	3	10	4	4	3	3	50	1	7	47	89	0	221
S27	6	12	7	3	6	5	40	3	5	64	84	0	235
S28	1	15	7	7	6	9	41	2	2	68	61	0	219
S29	7	16	8	4	2	7	59	2	6	62	57	2	232
S30	7	14	4	6	8	7	47	3	9	59	53	0	217
S31	12	10	6	7	5	3	54	2	3	60	71	0	233
S32	6	11	7	5	7	3	52	1	4	62	75	0	233
S33	4	16	10	8	3	5	52	1	7	58	68	0	232
S34	4	12	9	5	7	3	56	2	8	52	72	0	230
S35	5	13	9	6	4	4	52	3	8	55	78	1	238
S36	7	11	5	6	4	6	63	5	9	51	74	0	241
S37	2	9	10	3	6	6	46	0	8	51	70	0	211

 Table 4.3 Profiles based on the 12 types of transcription errors

Туре	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12	Total
Students													
S38	4	15	12	5	6	1	41	4	5	62	85	1	241
S39	3	9	6	2	3	5	52	5	6	44	80	0	215
S40	3	5	8	4	3	5	42	2	5	45	81	0	203
S41	6	10	7	10	2	8	51	2	6	67	57	1	227
S42	4	9	11	4	5	6	45	3	4	54	61	0	206
S43	4	11	8	6	6	7	49	2	4	45	53	1	196
S44	6	10	5	3	4	3	40	2	7	58	71	1	210
S45	5	12	7	4	8	6	50	4	6	58	69	0	229
S46	5	12	5	6	3	5	56	2	9	42	82	0	227
S47	3	3	4	3	5	5	48	4	5	45	78	1	204
Total	234	618	350	268	221	247	2439	121	274	2699	3216	21	10,708

Table 4.3 Profiles based on the 12 types of transcription errors

In table 4.3, four major errors (E11, E10, E7, and E2) in each row were sorted from most times to least times. For example, in S1, errors were ranked into E11> E7> E10> E2. From S1 to S47, Table 4.3 indicates that there are 3 common profiles of students' errors as follows in order of frequency.

- (1) E11 E10 E7 E2= 17 times (36.17%)
- (2) E11 E7 E10 E2=11 times (23.40%)
- (3) E10 E11 E7 E2=10 times (21.28%)

The 3 most common profiles always begin with E11 or E10 errors. E11 means always ranked as the first type of error (students make answers sound like the original text without considering the context, even if the word and grammar are wrong, non-existent, or do not make sense.). For example,

Incorrect: is natures

Correct: his lectures

This shows that students did not use any reference points to help them figure out the chunk. They fail to construct the signals they hear, which causes them not being able to understand the meaning of each chunk in context. E10 (students can transcribe most of the chunks, but failed to identify just one word.) is ranked as first (10 times). For example,

Incorrect: <u>they</u> have fun

Correct: and have fun

In the above example, students almost can transcribe the whole chunk, but they fail to identify "and". This indicates that students can transcribe most of the chunks. They may have some small problems due to their perception in listening. So they got it almost right but still fail to identify a single or controvert word.

Descriptive statistics were calculated to provide the basic information and to see if there is a potential relationship between the 47 students and 12 types of errors. Table 4.4 presents the overall results of the students' 12 types of errors. The mean score of E1 to E12 ranged from 0.45 to 68.43, and the standard deviation ranged from 0.72 to 12.52. This means that students are different. Teachers should fix their problem by using multiple approaches.

	E1	E2	E3	E4	E 5	E6	E7	E8	E9	E10	E11	E12	Total
Valid	47	47	47	47	47	47	47	47	47	47	47	47	47
Missing	0	0	0	0	0	0	0	0	0	0	0	0	0
Mean	4.98	13.15	7.45	5.70	4.70	5.26	51.89	2.57	5.83	57.43	68.43	0.45	227.83
Median	5.00	13.00	7.00	6.00	5.00	5.00	52.00	2.00	6.00	58.00	67.00	0.00	227.00
Std.Deviation	2.25	3.97	1.97	2.11	1.73	2.28	8.30	1.26	1.80	8.64	12.52	0.72	13.73
Minimum	1.00	3.00	4.00	2.00	2.00	1.00	40.00	0.00	2.00	42.00	44.00	0.00	196.00
Maximum	12.00	23.00	12.00	10.00	8.00	10.00	83.00	7.00	9.00	77.00	105.00	3.00	269.00

 Table 4.4 Descriptive statistics

4.1.2 Quantitative Analysis of Students' Grammatical Transcription Errors.

In order to have an overall picture of students' errors, grammatical errors were calculated to see the general connection with other types of error. Therefore, tense (E1), article (E2), demonstrative pronouns (E3), prepositions (E4), conjunction (E5) and nouns (singular and plural forms) (E6) are renamed as grammatical errors (T1). 10,708 errors were categorized into 7 types of errors (See Table 4.5). For more specific details, a frequency analysis was used to identify the percentages of each type.

T1. GrammarIncorrect: the best place to go Correct: the best places to go1938T2.Meaning- Incorrect: How the things going Correct: How is everything going2439makingCorrect: How is everything going2439T3. Perception.Incorrect: if you like121Correct : if you'd like121T4.PhonemesIncorrect: you say Correct: you see Incorrect: my nose Correct: my notes274T5. JustIncorrect: they have fun Correct: and have fun2798T6. ImprovisedIncorrect: is natures Correct: his lastures3216	rcentage	Rank
T2.Meaning-Incorrect: How the things going Correct: How is everything going2439makingCorrect: How is everything going121T3. Perception.Incorrect: if you like121Correct : if you'd like121T4.PhonemesIncorrect: you say Correct: you see Incorrect: my nose Correct: my notes274T5. JustIncorrect: they have fun Correct: and have fun2798T6. ImprovisedIncorrect: is natures3216	18.10	4
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T3. Perception.Incorrect: if you like121Correct : if you'd like121T4.PhonemesIncorrect: you say274Correct: you seeIncorrect: my noseCorrect: my noseCorrect: my notesT5. JustIncorrect: they have fun2798One word wrongCorrect: and have fun2798T6. ImprovisedIncorrect: is natures3216		
T4.Phonemes Incorrect: you say 274 Correct: you see Incorrect: my nose 274 Incorrect: my nose Correct: my notes 274 T5. Just Incorrect: they have fun 2798 One word wrong Correct: and have fun 2798 Correct: and have fun T6. Improvised Incorrect: is natures 3216	1.12	6
T4.Phonemes Incorrect: you say 274 Correct: you see Incorrect: my nose 274 Incorrect: my nose Correct: my notes 274 T5. Just Incorrect: they have fun 2798 One word wrong Correct: and have fun 2798 Correct: and have fun T6. Improvised Incorrect: is natures 3216		
Incorrect: my nose Correct: my notes T5. Just Incorrect: they have fun 2798 One word wrong Correct: and have fun 2798 Correct: is natures T6. Improvised Incorrect: is natures 3216	2.55	5
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One word wrong Correct: and have fun T6. Improvised Incorrect: is natures 3216		
Correct: and have fun T6. Improvised Incorrect: is natures 3216	25.20	2
T6. ImprovisedIncorrect: is natures3216		
•		
words Correct his lastwas	30.03	1
words Correct: his lectures		
T7. Incorrect: wonderful	0.20	7
Creating an Correct: one of		
approximate word.		

 Table 4.5 Summary of 7 transcriptions errors types and frequencies

There are 7 types of transcription errors in the above table. T1 means students who have problems with grammar. T2 means students can transcribe few words, but still failed to identify the whole chunk. T3 means students who have problems with perception. T4 means students have a problem with the following phonemes: /i:/& /er/; /ts/ & /z/. T5 means students who can transcribe most of the chunks, but they failed to identify just one word. T6 means students who attempt to make answers sound like the original text without considering the context, even if the words/grammar is wrong or non-existent. T7 means students who can write the correct answer on the first attempts, but change it (incorrectly) on their second or third attempt.

Profiles were also created for each student to see more specific details of errors produced by each student (See table 4.6)

Error typ Students	e T1	Т2	Т3	T4	Т5	Т6	T7	Total
Students S1	38	46	2	5	42	93	0	226
S2	54	53	3	6	60	65	0	241
S3	42	46	0	4	52	73	0	217
S4	43	64	1	8	52	58	1	227
S5	52	53	3	4	69	56	0	237
S6	46	40	3	7	77	58	0	231
S7	48	55	2	4	66	59	0	234
S8	42	49	3	4	59	55	3	215
S9	40	60	3	7	57	59	1	227
S10	54	55	2	6	57	62	1	237
S11	42	52	2	6	65	56	0	223
S12	51	46	3	3	58	54	0	215
S13	50	52	4	9	60	67	0	242
S12 S14	43	46	2	7	64	65	0	227
S15	40	83	2	4	54	86	0	269
S16	43	57	- 7	6	69	70	0	252
S10 S17	49	58	4	5	65	44	1	226
S18	36	53	2	6	44	105	0	246
S19	37	64	3	6	55	70	0	235
S20	43	53	3	8	72	55	1	235
S21	39	52	2	7	58	63	2	223
S22	51	56	2	5	64	60	1	239
S23	32	46	3	7	71	65	0	224
S23 S24	49	71	3	4	55	63	0	245
S25	34	43	2	3	45	86	2	215
S26	27	50	1	7	47	89	0	221
S20 S27	39	40	3	5	64	84	0	235
S28	45	41	2	2	68	61	0	219
S29	44	59	2	6	62	57	2	232
S30	46	47	3	9	59	53	0	217
S31	43	54	2	3	60	71	0	233
S32	39	52	Cubo	42	62	75	0	233
S33	46	52		7	58	68	0	232
S34	40	56	2	8	52	72	0	230
S35	41	52	3	8	55	78	1	238
S36	39	63	5	9	51	74	0	241
S37	36	46	0	8	51	70	0	211
S38	43	41	4	5	62	85	1	241
S39	28	52	5	6	44	80	0	215
S40	28	42	2	5	45	81	0	203
S41	43	51	2	6	67	57	1	203
S42	39	45	3	4	54	61	0	206
S42 S43	42	49	2	4	45	53	1	196
S44	31	40	2	7	58	71	1	210
S45	42	50	4	6	58	69	0	210
S46	36	56	2	9	42	82	0	229
S40 S47	23	48	4	5	45	78	1	204
Total	1938	2439	121	274	2699	3216	21	10708

Table 4.6 Profiles of 7 types and frequency of grammatical transcription errors

In table 4.6, four major errors (T6, T5, T2, and T1) in each row were sorted from most times to least times. For example, in S1, errors were ranked into T6> T2> T5> T1. From S1 to S47, Table 4.6 indicates that there are 8 common profiles of students' errors as follows in order of frequency.

- (1) T6 T5 T2 T1=17 times (36.17%)
- (2) T6 T2 T5 T1= 11 times (23.40%)
- (3) T5 T6 T2 T1= 6 times (12.77%)
- (4) T5 T6 T1 T2=3 times (6.38%)
- (5) T2 T6 T5 T1=3 times (6.38%)
- (6) T5 T2 T1 T6= 1 time (2.13%)
- (7) T5 T2 T6 T1=1 time (2.13%)
- (8) T6 T5 T1 T2= 1 time (2.13%)

From the above ranking profiles, the 3 most common configurations always begin with T6 or T5. The results of students' profiles are correlated with table 4.4. It can be seen that T6 is always the first type of error (students attempt to make answers sound like the original text without considering the context, even if the words/grammar is wrong or non-existent.). For example,

าลัยเทคโนโลยีสุร[ู]น Incorrect: is natures

Correct: his lectures

This indicates that students failed to identify the meaning of each chunk in a context. They did not use any reference points to help them figure out the chunk.

T5 (students can transcribe most of the chunks, but they failed to identify just one word. They got it always right) is ranked as first (9 times). For example,

Incorrect: they have fun

Correct: and have fun

This indicates that students can transcribe most of the chunks. They got it almost right but still fail to identify one word.

From the calculation of Pearson correlations (See table 4.7), the results showed that there is a correlation between the 47 students and 7 types of errors. It shows the overall results of the students' 7 types of errors. The mean score of T1 to T7 ranged from 0.45 to 68.85, and the standard deviation ranged from 0.72 to 12.52. This means that each student's learning disabilities are different. Teachers should consider their individual difference to treat them.

	-							
	T1	T2	T3	T4	T5	T6	T7	Total
Valid	47	47	47	47	47	47	47	47
Missing	0	0	0	0	0	0	0	0
Mean	41.23	51.89	2.57	5.83	57.43	<mark>68.43</mark>	<mark>0.45</mark>	227.83
Median	42.00	52.00	2.00	6.00	58.00	67.00	0.00	227.00
Std. Deviation	7.01	8.30	1.26	1.80	<mark>8.6</mark> 4	12.52	<mark>0.72</mark>	13.74
Minimum	23.00	40.00	0.00	2.00	42.00	44.00	0.00	196.00
Maximum	54.00	83.00	7.00	9.00	77.00	105.00	3.00	269.00

 Table 4.7 Descriptive Statistics

For more specific details of each type of error, Pearson's correlation was

calculated to see the correlation. (See table 4.8)

Table 4.8 Pearson's Correlation	n
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Variable		T1	T2	Т3	T4	T5	T6	T7
1. T1	n	_						
	Pearson's r	_						
	p-value	_						
2. T2	n	47						
	Pearson's r	0.210						
	p-value	0.156						
3. T3	n	47	47					
	Pearson's r	0.041	0.091					
	p-value	0.785	0.543					

Variable		T1	T2	Т3	T4	T5	T6	T7
4. T4	n	47	47	47				
	Pearson's r	-0.118	0.098	0.092				
	p-value	0.431	0.513	0.539	_			
5. T5	n	47	47	47	47	_		
	Pearson's r	0.538***	-0.091	0.198	-0.043			
	p-value	<.001	0.542	0.182	0.775	—		
6. T6	n	47	47	47	47	47		
	Pearson's r	-0.582***	-0.060	-0.068	0.015	-0.589***		
	p-value	<.001	0.691	0.650	0.921	<.001		
7. T7	n	47	47	47	47	47	47	
	Pearson's r	-0.013	-0.028	-0.026	-0.075	2.242e -4	-0.242	_
	p-value	0.933	0.850	0.865	0.618	0.999	0.101	

 Table 4.8 Pearson's Correlation (Cont.)

From the above calculation of Pearson correlations, the results showed that there are 3 significant correlations (1 positive correlation and 2 negative correlations).

T5 and T1 significantly correlate with each other (r=0.538; p<0.001). This suggests that if students made T5 (Students can transcribe most of the chunks, but they were unable to identify just one word.) error, they would also make T1 errors (Students have problems with grammar.). This also indicates that if students made a grammar error, it is probable that they would fail to construct one word then they make the T5 error. For example,

Incorrect: Yes, that is wonderful idea

Correct: Yes, that is a wonderful idea

The above example shows a chunk containing the omission of indefinite article. In the incorrect block, it lacks the article "a" before the "wonderful idea". The word "idea" is a noun, and an article is needed to modify it. Thus, it can be assumed that article errors are a problem for Chinese students when they listen to English. English in particular, has become a language with global ownership with the rapid development of English as a lingua franca (ELF). English speakers are more heterogeneous and diverse than ever before, English users have their ways of using English. ELF speakers and learners in particular are likely to be without "articles". So that is why students didn't "hear" the "article" but they have a reason to fill in a word and make the article errors.

T6 and T1 are significantly but negatively correlated with each other (r=-0.582; p<0.001). This suggests that if students get T1 (students have problems with grammar.) correct, but they attempt to make answers sound like the original text without considering the context, even if the words and grammar are wrong or non-existent (T6), they would make the T1 error. For example,

Incorrect: the best <u>place</u> to go

Correct: the best places to go

T6 and T5 are significantly but negatively correlated with each other (r=-0.589; p<0.001). This suggests that if students get T5 (Just one word wrong) correct, but they try to make the answer sound like original text without considering the context, even if the words and grammar are wrong or non-existent (T6), they would make the T5 error. For example,

Incorrect: they have fun.

Correct: and have fun.

In order to know more details of students' errors, the researcher gave a specific discussion below.

(T1) Students have problems with grammar.

In this study, the grammatical errors include article omission, prepositions revision; singular and plural nouns, and tense misusage. In students' profiles (Table 4.6), it shows that T6 (Students attempt to make answers sound like the original text without considering the context, even if the words and grammar are wrong or non-existent.) significantly but negatively correlate with T1 (grammar) error and T5 (students can transcribe most of the chunks, but students failed to identify just one word.) error. Moreover, 1,938 grammatical errors (18.10 %) were found in students' transcription activity (See table 4.5). It may conclude that students have poor grammar knowledge. The result is consistent with the studies conducted by the following researchers.

The results of grammatical errors in this research are similar to the study on the analysis of errors in Chinese EFL students' dictation did by (Lv, 2011; Hu, 2012; Huang and Liao, 2012). These findings show that the students produced grammatical errors, which include articles, personal persons, conjunctions, tense errors, noun (singular and plural form), subject-predicate agreement, and compound adjective errors.

The grammatical errors in this study also corresponded to the study on the analysis of errors in Japanese students' listening conducted by Blight and Stephens (2011). Especially, article errors were produced by their participants. This might be because they have investigated the errors made by college students in English listening. As we know, with the development of ELF, learners and speakers are freer to communicate without "articles". Therefore, researchers found that the article errors similarly occurred in the students' listening.

In sum, it can be said that grammar is a problematic area for Chinese students. They were not able to construct the meaning of the chunk, which caused them to misuse the grammar rules in a chunk and failed to use grammar knowledge to correct the chunk they heard. Therefore, it may be concluded that sufficient grammar knowledge could contribute to better listening comprehension and influences L2 listening ability.

(T2) students can transcribe few words, but still failed to identify the whole chunk.

Students were unable to construct all the signals they heard, and then they perceived some words. For example,

Incorrect: How the things going

Correct: How is everything going

As shown in the above example Students have difficulty in segmenting the words into recognizable words. Students were unable to make sense the word "is" and catch "everything". In the above example, if students can catch every single word, they would get the preposition correct. It seems that students tend to rely on catching a single word in a stream of speech. However, they still failed to do it. Goh (2000) identified one of the L2 listening problems is students do not recognize words they knew. People do not hear every sound; in this case, they were only able to catch the words they want to hear. This might be another reason to explain this type of error.

(T3) Students have a problem with the perception.

In the process of listening, students fail to perceive the transition and reduced words, which confuses them to make the meaning of the sound. According to Field (2008), listeners fail to distinguish the sounds and words in a spoken text, which is related to perception problems. Phonological problems are difficult for listeners during the phase of perception. In this study, students revealed their difficulty in perceiving the liaisons and reduced sound. It is related to the conjunctions, such as "and", "as", "but", "or" and others often have weak forms in reduced speech. For example, the strong form of "and" is pronounced as /And/, while its weak form is pronounced as /End/, /En/, or the simple nasal sound /n/.

This error type is similar to the study on the analysis of errors in Chinese EFL students' dictation conducted by Xiao (2016). The findings showed that the students produced two types of errors: (1) Sound recognition errors (students hear the words which are similar to other words, which causes student missing some words, inserting words, changing words, and word order.) (2) Students cannot distinguish between liaison, reduced sound (missing articles, i,e., "a" and "an"), and (3) grammatical errors (singular and plural forms; verb; third-person singular -s or –es; adverbs with –ly; the -ed forms of the past participle)

(T4) Students have a problem with the following phonemes: $i:/\&/e_I/; t_s/\&/z/.$

Students have difficulty in identifying acceptable pronunciations of some phonemes. The four phonemes mentioned above are relative. Moving from one phoneme to another will cause the change of meaning of words. If the listener cannot correctly recognize or perceive these segments, he or she will get a different word or meaning that is far from the target word. As Cross (2009) said, L2 learners have the most difficulty in word recognition because any similarity between the two phonemes may lead to their misunderstanding. For example, students failed to hear "you see" and perceived it as "you say". Hence, students failed to make meaning of the chunk in a context. Moreover, the results are consistent with the research of Ma (2014). The study aimed to investigate the types of errors in dictation produced by 56 first-year students majoring in English. The finding found out about sound recognition errors, which fails to distinguish similar phonemes and omission of articles. (T5) Students can transcribe most of the chunks, but they failed to identify just one word. They got it right.

In order to know the "one word wrong" in T5 errors, the researcher created a table to see details of each chunk (See table 4.9). For more specific details of T5 errors, see Appendix H.

Rank	Words	<mark>#of</mark> words	Percentage (%)
1	verbs	619	22.93
2	Nouns (singular)	311	11.52
	Noun(plurals)	144	5.34
3	conjunctions	325	12.04
5	pronouns	244	9.04
6	prepositions	240	8.89
7	articles	241	8.93
8	adjectives	118	4.372
9	abbreviation	111	4.11
10	numerals	41	1.52
11	modals	30	1.11

Table 4.9 Details of "one word wrong" in T5 errors.

From above table, it shows that students have problems with singular and plural nouns in chunks. There were 311 (11.52%) noun (singular) errors and 144 (5.34%) noun (plural) errors. The high frequency of noun errors seems to suggest L1 interference, indicating that L1 transfer should be taken into account when discussing noun errors. Students made this type of error because they apply the rules of their mother tongue to the formation of English plurals. This is the language transfer or the integration of the patterns from the native language into the target language, which is the main source of errors for ESL or EFL learners (Brown, 2007). One area where language transfer is particularly common among Chinese learners is the formation of English plurals. Since Chinese does not use inflections to achieve grammatical functions, knowing these

fundamental differences between the two language systems is essential for Chinese students to learn English plurals. Students need to monitor the occurrence and formation of plurals.

Students made 241 (8.93%) article errors. There might be two reasons for the high rate of Chinese students' article errors in listening comprehension. First, The L1 of the contributors to this listening transcription activity was Mandarin Chinese, and there is article system. It can be assumed that article error is likely for Chinese students when they listen to English. Second, the use of articles is closely related to the characteristics of nouns (countability and number). Chinese language does not distinguish between countable nouns and uncountable nouns, and there is no strict distinction between singular and plural forms (plural signs are not needed), which makes it difficult for Chinese learners to understand the concepts of plural and countable.

Grammatical preposition errors indicate that learners have difficulty with the role/function of the preposition in the chunks, while preposition (lexical grammar) errors indicate that they do not know the correct association between the preposition and the lexical item. Prepositions are particularly difficult because they need to consider both syntactic and lexical characteristics when selecting prepositions in a specific context. In some cases, multiple prepositions can be accepted. The L1 background of Chinese learners is unlikely to be helpful to them, because the Chinese preposition system is not as strict and complex as the English system. For example, Chinese language uses only one preposition "茬" (in/on/at), which is associated with various time references (year, month, week, day, and time), while the English preposition system uses different prepositions (in/on/ at). This makes teachers think that except introducing students to syntactic rules and vocabulary features, teachers also need to

offer them with more L2 exposure to enhance their familiarity with English prepositional phrases in the context.

(T6) The most frequent error type (28.56%) means students attempt to make answers sound like the original text without considering the context, even if the words/grammar are wrong, non-existent, or do not make sense.

This means students failed to construct the meaning and tried to produce their answers that sounded like the original text. They were unable to identify the reasonable meaning of each chunk in a context. It is possible that they replaced the sound with similar words or non-words related to the sound. Then students pretended to guess the words while they could not understand the high-level meaning. They were unable to start the chunking process at the most basic level, and therefore being unable to reorganize the input at higher levels of representation. McCauley and Christiansen (2015) state that proficient language listeners would have a good sense of how such chunking (at all levels) would work and would have memorized a range of low-level (and perhaps high-level) language chunks enabling rapid recognition and processing of the stream of speech. Problems occurred because of the participants' lack of knowledge of specific words, or their poor foreign language listening skills. Some students were completely unable to construct high-level understandings at all. Hence, students did not use any reference points to help them construct the chunks.

Besides, it can be assumed that students lack extensive listening practices, so they did not get used to listening to the chunks. In the process of listening, students fail to select the correct word based on the contextual semantic judgment, but only listen to the sound and then they match those words with the recording. Finally, they were unable to transcribe the words. (T7) Students can write the correct answer on the first attempt, but change it to incorrect answer on their second or third attempt.

This indicates that people do not necessarily perceive the same signal in the same way when they hear it more than once, partly because of changes in brain wave oscillations, according to Herrmann and Knight (2001), and partly because of changes in our understandings either of the signal itself or of the upper-level inferential units. Or students do not have enough confidence to believe what they hear. But students tend to believe what they hear, which are not exits.

In short, it can be assumed that the current research and previous research results are similar. In Chinese EFL context, the studies of Huang and Liao (2012), Xiao (2016), and Xu and Gong (2018) found that Chinese students commonly committed errors in sound recognition (cannot figure out a single word), and grammar errors in students' dictation. Particularly the misuse of grammar was also found in these studies, for example, the omission of articles ("an" and "the", or the insertion of an extra "a" when it did not appear), tenses (especially the misuse of the present perfect tense), errors in conjunction, nouns (singular/ plural forms), demonstrative pronouns and prepositions. In addition, the current research and previous research have similar findings, because all these research are conducted on Chinese college students. Therefore, most of the participants might have close English ability and comprehension that produce errors in listening. Moreover, this study also found that students failed to recognize the phonemes ([i:] & [eI], [ts] & [z]). Students can write the correct answer on the first attempt but change it (incorrectly) on their second or third attempt. Students have problems in constructing the chunk. Students were attempting to produce answers that sound like the original text no matter how unlikely the words happen to be. This suggests that students

lost their ability in the listening transcription activity. Or students heard what they want to hear and cannot construct the chunk as required. Therefore, students need teachers' help to fix their listening problems and improve their listening ability.

4.1.3 Quantitative Analysis of the Text

This study has been focusing on the student but now it may be possible also to focus on the text and be able to decide which chunks are likely to be the most difficult and why. It could also lead to some pedagogic implications.

4.1.3.1 Quantitative Analysis of the Text in Conversation 1

Therefore, the researcher made a table for conversation 1, which chunks had the most and the least number of errors, and ranked them in order from most errors to fewest errors (See table 4.10)

Chunks	Number of	Number of	Number of errors
	Syllables	no-errors	(from most to fewest)
I've saved my tips	4	0	47
these past few months	5	-0	47
working in a restaurant	6	0	47
I've got a little	4	0	47
is like hell	3	0	47
We'll save	2	0	47
We'll save Let's say, Spain but anywhere cheap	3	0 3	47
but anywhere cheap	18In4Iu	0	47
is coming to an end	6	1	46
and have fun	3	1	46
from my waiter job	5	1	46
and I should have enough	6	1	46
but I might need	4	1	46
But it's pretty cool	5	1	46
we should invite some others	7	1	46
Tom and Tracy	4	1	46
to go somewhere	4	1	46
He has a lot experience	8	1	46

 Table 4.10 Number of syllables and errors in conversation 1

Chunks	Number		Number of	Number of errors
	Syllable	es	no-errors	(from most to fewest
and it'll work out	4		1	46
and go sailing	4		1	46
would be fine	3		1	46
to the drawing board.	5		1	46
take a holiday overseas	8		2	45
as working	3		2	45
if your boss	3		2	45
is all right.	3		2	45
to come along	4		2	45
we could go sailing.	4 5		2	45
if there's more of us	5		2	45
next July	3		2	45
if they are up for it	6		2	45
I haven't been abroad	5		3	44
to hire one	- 3		3	44
Yes, that's a wonderful idea	9		4	43
for a rainy day	5		4	43
if they are interested	7		4	43
for a long while	4		4	43
And it would be great	5		4	43
a lot cheaper	4		4	43
I've just finished	4		5	42
The term	2		5	42
put aside	2		_5	42
What's it like	3		5	42
a 10-hour shift	4		5	42
it'll suit you			5	4 2
with boats	3		5	42
			-135	42
we'd better contact	ลัยเกรา	u	a95	42
by July	3		6	41
to earn a little more	6		6	41
as much as we can	5		6	41
and see	2		6	41
it'll be back	3		6	41
to relax	3		7	40
Tom and Tracy	4		7	40
Well, it's really tough	6		9	38
Do you think	3		9	38
by the sea	3		10	37
that's a plan	3		10 10	37
that 5 a plan	5		10	51

 Table 4.10 Number of syllables and errors in conversation 1 (Cont.)

Chunka	Number of	f Number of	Number of errors
Chunks	Syllables	no-errors	(from most to fewest)
How's everything going	6	12	35
if Tom goes	3	13	34
Hi. Jane	2	15	32
Do you think	3	15	32
Yes, we could ask	4	15	32
we should	2	16	31
my last exam	4	22	25
and	1	22	25
I'm not sure	3	24	23
to share the cost.	4	27	20
So far so good	4	29	18
before we go	4	29	18
I can't wait	3	34	13
Ok	2	35	12
Good	_1	42	5
By the way	3	43	4
So		44	3
If not	2	46	1

Table 4.10 Number of syllables and errors in conversation 1 (Cont.)

In conversation 1, descriptive statistics were calculated to provide the basic information and to see if there is a potential relationship between the number of syllables, number of errors, and number of no-error. (See table 4.11)

Table 4.11 Descriptive Statistics					
	Number of Syllables	Number of no-error	Number of errors		
Valid	1751251	no[1]7780	77		
Missing	0	0	0		
Mean	<mark>3.92</mark>	8.73	<mark>38.27</mark>		
Median	4.00	4.00	43.00		
Std. Deviation	1.62	11.70	<mark>11.70</mark>		
Minimum	1.00	0.00	1.00		
Maximum	9.00	46.00	47.00		

 Table 4.11 Descriptive Statistics

Table 4.11 shows the overall results of the 77 chunks and students'

10

errors. The results showed that there existed certain correlations between the 77 chunks and students' errors. The mean score of syllables to errors ranged from 3.92 to 38.27, and the standard deviation ranged from 1.62 to 11.70. This means that chunk length would affect students' errors. Because some chunks' syllables are too long, it is difficult for students to construct what they hear. They tend to ignore the fact that different segments of chunks in natural speech, which means that unlike readers, listeners do not regularly indicate where the words begins and ends.

For more specific details of text type, Pearson's correlation was calculated to see the correlation between the number of syllables, number of errors, and number of no-error (See table 4.12). In conversation 1, there is a positive correlation of about 0.42 between chunk length and the number of errors produced and the significance is very high.

Variable	Number of Syllables	Number of errors	Number of no-error
1. Number of Syllables	Pearson's r	-	
	p-value	_	
	Spearman's rho	_	
	p-value		
2. Number of errors	Pearson's r	0.420***	
	p-value	<.001	
	Spearman's rho	0.408***	_
	p-value	<.001	_
3. Number of no-error	Pearson's r	- <mark>0.420***</mark>	-1.000***
4	p-value	<.001	<.001
12	Spearman's rho	-0.408***	-1.000***
.0	p-value	<.001	<.001
* p < .05, ** p < .01, *	*** p < .001	laver	

 Table 4.12 Pearson's Correlation

In table 4.12, there is a positive correlation of about 0.42 between chunk length and the number of errors produced and the significance is very high. Thus, chunk length contributes to the errors.

4.1.3.2 Quantitative Analysis of the Text in Conversation 2

The researcher made a table for conversation 2, which chunks had the most and the least number of errors, and ranked them in order from most errors to fewest errors (See table 4.13).

Chunk	Number of	Number of	Number of error
Спипк	syl <mark>la</mark> bles	no-error	(from most to fewest)
a very exciting speaker	8	0	47
begins to wander	5	0	47
But the subject	4	0	47
by writing down	4	0	47
not typing	3	0	47
that you seem to be ok	7	0	47
Yes, honesty	4	0	47
Again, the point is	5	1	46
and nonsense really	6	1	46
but after about ten minutes	8	1	46
his lectures 7	3	1	46
his line of thinking	5	1	46
I read	2	1	46
If I'm at home	4	1	46
is keep my pen moving	6		46
is to write things down	5	1	46
it works for me	4	1	46
on a keyboard.	4		46
what Mr. Brown says	5	1	46
How do you stay focused	6	2	45
I just draw little lines	6	225	45
It has a similar effect	- 8	2 2	45
the most effective ways	JUI67IU		45
while keeping the pen moving	7	2	45
I can follow	4	3	44
and I need to study	6	4	43
in a more physical way	7	4	43
is read out loud	4	4	43
It can keep the mind active	7	4	43
Mr. Brown's lectures	5	4	43
of active concentration	7	4	43
to actually engage with	8	4	43
afterwards then	4	5	42
and I lose concentration	7	5	42
And that helps you	4	5	42
is interesting	5	5	42

Table 4.13 Number of syllables and errors in conversation 2

Table 4.15 Number of synaples a	Number of		Number of error
Chunk	syllables	no-error	(from most to fewest)
through the entire hour	5	5	42
what you're learning	4	5	42
but that's not important	6	6	41
It helps memorize information	9	6	41
prevent getting bored	5	6	41
are so boring	4	7	40
every one of	4	7	40
It's a method	4	7	40
But I see	3	8	39
But it has to be done	6	8	39
My notes	2	8	39
review your notes	4	8	39
to listen hard	4	8	39
You draw	2	8	39
and help to concentrate	6	9	38
forces you	3	9	38
I read about	4	9	38
to concentrate	4	10	37
Well, what I do	4	10	37
What do you mean	4	10	37
sometimes I draw a little too	8	- 11	36
may or may not be useful	7	13	34
writing by hand	4	13	34
But the point is that		14	33
in a physical way	56	17	30
One of	2	18	29
It was also	4	19	28
pay attention	4	20	27
I try to listen	5	22	25
to writing by hand	5	22	25
I really try	5	24	23
My mind	5 5 2	26	21
During	2	28	19
what I do	SIN3 U	31	16
more easily	4	32	15
in that article	5	36	11
Yes, he is not	4	40	7
Do you	2	41	6
In fact	2	43	4
in class	2	44	3
Sometimes	2	44	3
You see	$\frac{1}{2}$	44	3
by hand	2	45	2

 Table 4.13 Number of syllables and errors in conversation 2 (Cont.)

In conversation 2, descriptive statistics were calculated to provide the basic information and to see if there is a potential relationship between the number of syllables, number of errors, and number of no-error. (See table 4.14)

	Number of Syllables	Number of no-error	Number of errors
Valid	79	79	79
Missing	0	0	0
Mean	<mark>4.65</mark>	11.06	<mark>35.94</mark>
Median	4.00	6.00	41.00
Std. Deviation	1.76	12.96	<mark>12.96</mark>
Minimum	2.00	0.00	2.00
Maximum	9.00	45.00	47.00

 Table 4.14 Descriptive Statistics

Table 4.14 shows the overall results of the 79 chunks and students' errors. Through the use of descriptive statistics, the results showed that there existed certain correlations between the 79 chunks and students' errors. The mean score of syllables to errors ranged from 4.65 to 35.94, and the standard deviation ranged from 1.76 to 12.96. This means that chunk length would affect students' errors. Because some chunks' syllables are too long, it is difficult for students to construct what they hear. They tend to ignore the fact that different segments of chunks in natural speech, which means that unlike readers, listeners do not have regular indications of where words begin and end.

For more specific details of text type, Pearson's correlation was calculated to see the correlation between the number of syllables, number of errors, and number of no-error (See table 4.15).

Variable	Number of Syllables	Number of errors	Number of no-error
1. Number of	Pearson's r		
Syllables	p-value	_	
	Spearman's rho	—	
	p-value		
2. Number of	Pearson's r	<mark>0.488***</mark>	
errors	p-value	<.001	
	Spearman's rho	0.398***	
	p-value	<.001	—
3. Number of	Pearson's r	- <mark>0.488***</mark>	-1.000***
no-error	p-value	<.001	<.001
	Spearman's rho	-0.398***	-1.000***
	p-value	<.001	<.001

 Table 4.15 Pearson's Correlation

***** p < .05, ****** p < .01, ******* p < .001

In table 4.15, there is a positive correlation of about 0.49 between chunk length and the number of errors produced and the significance is very high. Thus, chunk length contributes to the errors.

4.1.3.3 Quantitative Analysis of the Text in Conversation 3

The researcher made a table for conversation 3, which chunks had the

most and the least number of errors, and ranked them in order from most errors to fewest errors (See table 4.16).

้^{วั}กยาลัยเทคโนโลยีส์^รั

Chunk	Number of syllables	Number of no- error	Number of error (from most to fewest)
You are in luck.	4	0	47
to try it out	4	0	47
to add two more	4	0	47
are the most exciting though.	7	0	47
are going	3	0	47
When will it be happening	7	1	46
We have a reservation	7	1	46
different price points.	5	1	46
at a discounted price	6	1	46

Table 4.16 Number of syllables and errors in conversation 3

Chunk	Number of syllables	Number of no- error	Number of error (from most to fewest)
Wow, that's an event	5	2	45
within the (614)	6	2	45
the Pearl	2	2	45
some of the more expensive	10	2	45
restaurants			
Restaurant Week starts	5	2	45
in just a few days	5	2	45
I have a habit	5	2	45
called Restaurant Week	5	2	45
All the stylish restaurants	7	2	45
if you'd like	3	2	45
	4	3	44
Where do you hear			
three different places	6	3	44
this year	2	3	44
They have special set menus	7	3	44
the best places to go	6	3	44
That's how we found	4	3	44
of reading (614) Magazine	9	3	44
I would be interested in	8	3	44
at a number of	8 5 2	- 3	44
the Pearl	2	4	43
Let's make sure	3	4	43
for the magazine then	6	4	43
on new restaurant openings?	8	5	42
column code area	6	5	42
a double date	4	5	42
You always seem	4	6	41
to set	2	6	41
they also sponsor	5	6 10-	41
the new restaurant,	5	6	41
I can call	3	6	41
	5		
Concerts, festivals	ริยุทธิ์แปล		41
a local event		/	40
Things like	2	8	39
Restaurant Week	4	8	39
Does it only focus	6	8	39
and small shops	3	8	39
That was a clever name	6	9	38
at least	2	9	38
usually in spring	6	10	37
and reviews	3	10	37
about these things	4	11	36
Susan and I	4	12	35
what type of food	4	13	34
you would like to try	5	14	33

Table 4.16 Number of syllables and errors in conversation 3 (Cont.)

Chunk	Number of syllables	Number of no- error	Number of error (from most to fewest)
What's that	2	14	33
Have you heard about	5	14	33
the restaurant information	8	15	32
It has all the information	8	16	31
during the event	5	16	31
Oh, it's wonderful	5	17	30
during the event	5	17	30
the first Sunday	4	18	29
and try something new	5	18	29
Just let me know	5 4	20	27
other information too	7	22	25
I think	2	22	25
go to	2 2	22	25
Susan and I	4	23	24
We'd love	2	24	23
They have	2	24	23
That sounds great.	3	24	23
in May		24	23
It's a great opportunity	2 8 3 5	27	20
for the week	. 3	27	20
at 7 o'clock	5	27	20
to join you	3	30	17
participate	4	30	17
on Saturday	4	- 31	16
to try	2	34	13
to the table	4	36	11
Okay, I will	4	36	11
this weekend		40	7
to know	32	42 100	5
Each year	$\frac{1}{2}$	45	2
actually	4	46	1

Table 4.16 Number of syllables and errors in conversation 3 (Cont.)

In conversation 3, descriptive statistics were calculated to provide the

basic information and to see if there is a potential relationship between the number of syllables, number of errors, and number of no-error. (See table 4.17)

	1		
	Number of Syllables	Number of no-error	Number of errors
Valid	84	84	84
Missing	0	0	0
Mean	4.54	12.41	<mark>34.60</mark>
Median	4.00	8.00	39.00
Std. Deviation	<mark>1.89</mark>	12.06	<mark>12.06</mark>
Minimum	2.00	0.00	1.00
Maximum	10.00	46.00	47.00

Table 4.17 Descriptive Statistics

Table 4.17 shows the overall results of the 85 chunks and students' errors. Through the use of descriptive statistics, the results showed that there existed certain correlations between the 85 chunks and students' errors. The mean score of syllables to errors ranged from 4.54 to 34.60, and the standard deviation ranged from 1.89 to 12.06. This means that chunk length would affect students' errors. Because some chunks' syllables are too long, it is difficult for students to construct what they hear. They tend to ignore the fact that different segments of chunks in natural speech, which means that unlike readers, listeners do not have regular indications of where words begin and end.

For more specific details of text type, Pearson's correlation was calculated to see the correlation between the number of syllables, number of errors, and number of no-error (See table 4.18). In conversation 3, there is a positive correlation of about 0.34 between chunk length and the number of errors produced and the significance is very high.

Variable	Number of Syllables	Number of errors	Number of no-error
1. Number of Syllables	Pearson's r		
	p-value		
	Spearman's rho		
	p-value		
2. Number of	Pearson's r	0.342***	_
errors	p-value	0.001	_
	Spearman's rho	0.357***	_
	p-value	<.001	
3. Number of no- error	Pearson's r	- <mark>0.342***</mark>	-1.000***
	p-value	0.001	<.001
	Spearman's rho	-0.357***	-1.000***
	p-value	<.001	<.001

 Table 4.18 Pearson's Correlation

* p < .05, ** p < .01, *** p < .001

In table 4.18, there is a positive correlation of about 0.34 between chunk length and the number of errors produced and the significance is very high. Thus, chunk length contributes to the errors. If the chunk length is long for them, they would make about 40% of the errors. Different length of chunks' syllables is a problem for the non-native listener. A learner with limited English or weak listening skills was unable to segment speech to match between sounds and known vocabulary items. But it is worth noting that learners have been trying to construct words in these different syllables, but they still fail to do it. For example,

Correct chunk: working in a restaurant

Student 1: Working the restaurant.

This shows that student 1 perceived two words "in" and "a" into "the". Students may continue to build text models that include other content, and can even reshape the following content to adapt to it in some way. From this example, it could be concluded that it is valuable to train learners to listen to the chunk' syllables, which helps them get used to the different segments of chunks in natural speech. With proper training, learners might master this skill more quickly-although it may be necessary to train their ears to recognize vocabulary stress, if the stress in English is different from their native language. The authentic text will be played to learners, and they are asked to write down the syllables and match them with words they know. Then they can draw their attention to how many syllables are in these words. Paying attention to syllables in this way can not only help learners locate word boundaries, but also draw attention to the segment of a chunk.

4.2 Types of Transcription Errors in Passages

This section reports the results and provides a discussion of the type of errors from students' transcription activity of task 2.

As shown in Table 4.19, the total number of errors in students' transcriptions was calculated and categorized into types. The frequency and percentage of each type were identified. All passages were marked as summary with or summary without errors and were calculated for their total numbers and percentages.

Passage	Total	Percentages (%)
1. Error-free passage summary	6	5.17
2. Passage summary with error	110	94.83
Total	116	100

Table 4.19 Summary of passages and the number of overall errors

Table 4.19 shows that students listened to a total of 116 passage summary, there were 110 errors (94.83%) and 6 (5.17%) error-free passage summary. For more obvious
results, 110 passage summary errors were identified into 4 types of errors. Then, a frequency analysis was used to calculate the percentages of each type. The details of these frequent types of errors that occurred in the passages are presented as follows.

Types of Errors	# of Errors	Percentage (%)	Rank
T1. General understanding	38	34.55	1
T2. Details	21	19.09	3
T3.Details are not relevant	36	32.73	2
T4. Details are contradictory	15	13.63	4

 Table 4.20 Summary of transcription errors types and frequencies

From the above table, there are 4 types of passage summary errors. T1 means students who got only the general topic of the passage. T2 means students who wrote the main story of the passage, only some details are not correct. T3 means students who created other details, which are not relevant to this passage. T4 means students who wrote something contrary to the passage.

T1: Students only get the general topic of the passage.

Student' transcription example: <u>There are more and more traffic jam in American. A</u> lot of people drive a car to work.

This example shows that the student can only get the general idea of the passage 1 (Appendix C). In this case, students may be more convinced of the top-down evidence, which may affect the learner's accurate processing of the sound of the target language. Then, students fail to infer meaning from the contextual clues between the spoken text and the various types of prior knowledge the student has. Vandergrift (2003) pointed out that adopting top-down process may actually have interfered with lower-skilled learners, thereby effectively developing the conceptual framework and contractual meaning. Therefore, learners prefer to match unrecognized words very closely with

known words supported by top-down evidence. In the end, students can only get the general topic of the passage.

T2: Students can write the main story of the passage, only some details are not correct.

Student' transcription example: It is not your imagination. Traffic jams in the US is ... There are many transportations in the US. The transportation in the Us had more than 3000 million miles. <u>The previous record is 3000 million miles in 2017 before</u> <u>economy process.</u> And the traffic jam in the Us is increasing, which come to gas problems. Transportation expert said it can find in..... Some people even spend14 rush hours in the transportation because of the traffic jams.

This example shows that the student is able to organize the main story of passage 1, only some details are not correct, i.e. the student wrote, "The previous record is 3000 million miles in 2017 before economy process." However, passage 1(Appendix C) mentions that the U. S. Department of Transportation says Americans drove nearly 3,150 billion miles last year. That's about the same distance as 337 round trips from Earth to Pluto. The previous record was 3,003 billion miles in 2007 before the economic recession and high gas prices.

In this case, students were unable to use their language knowledge and ability to process some sound signals to understand passages. They lack the ability to process the details in a passage. In addition, in terms of unfamiliar words, listeners pay more attention to vocabulary recognition and cannot understand the remaining information. This is called bottom-up processing deficiency (Tyler, 2001). Therefore, listening instruction should be on training students' bottom-up perception skills. Moreover,

Vandergrift (2004) pointed out that learners need to learn how to use top-down and bottom-up to succeed. Students must hear some sounds (bottom-up) and keep them in their working memory long enough (ie, a few seconds) to connect them to each other, and then explain what they heard before introducing new information Content (Nunan, 2010). At the same time, listeners also need to use their background knowledge (topdown) to determine the meaning of prior knowledge and schemas (Brown, 2007). Both processes are necessary in listening comprehension.

T3: Students create other details, which are not relevant to this passage.

Student' transcription example: before the trav my pops well, is to from work and travels to and troubble's listening travel of my to use American one hundred three hundred with three thousand the travel use is one dollar, a years ago, resent years like puopure to different works the travel a forty two uurs that is very presence

This example shows that the student's transcriptions do not match the original passage 1(Appendix C) In this case, students failed to construct the meaning of the passages. Students lost their language listening ability in this process. As Rost (2002) pointed out, word segmentation and recognition form the basis of oral comprehension, which means that if learners cannot recognize a certain number of words in the input, they will not be able to construct a meaningful representation of any text. Therefore, they may not be able to access relevant contextual information.

T4: Students write something that contradicts the passage.

Student' transcription example: The article is mainly about traffic jam and use of transpotation way in the US. With the development of economica, more and more people will drive their car to work. However, which will attract traffic jam, sometimes

cars can not move .of course, many people want to buy car, <u>gas will be much higher.</u> It's a problem to the US now.

The example was the error that the students wrote something is contrary to the passage 1(See Appendix C) which shows that the traffic increase comes at the same time as gas prices drop significantly. Students misperceived the acoustic information. Then they fail to decode some details in the passage.

In conclusion, this section deals with the quantitative data from the students' transcriptions activity to answer the first research question in this study: What kinds of transcription errors are made by Chinese university students major in English when listening to recorded audio materials? The results revealed that there are 7 types of transcription errors and 4 types of passage summary errors. Besides, in order to explore the factors leading to these types of transcription errors, the students' comments and problems from the introspections and interviews were analyzed and will be discussed in the next section.

4.2.1 Qualitative Analysis of Students' Reasons Leading to the Transcription Errors.

4.2.1.1 Qualitative Analysis of Students' Introspections

This section reports and discusses the results of students' introspections from their comments and problems toward the listening to the chunks and summary passages.

After the four steps of analyzing students' comments, the findings revealed 3 factors leading to the transcription errors: (1) Failure in meaning-making, (2) Lack of grammar knowledge, and (3) Lack of vocabulary. It is clear that students' reasons support the errors they made. More details of each factor are presented below.

1) **Failure in meaning-making.**

Students were not able to recognize the sound of the chunk. For Student 9: "*I'm not familiar with the sounds; I do not know which*

one I should choose to write it."

example,

Student 27: I cannot recognize the words I heard.

Besides, students' introspections also show students were not able to make sense of the summary as they cannot construct the sound they heard. (More examples see appendix I)

Student 12: "some sounds are very similar; it's difficult for me to

organize the meaning of the passage."

Student 32: "I have problems with liaison; it's difficult for me to catch every specific detail."

According to the above extracts, it can be concluded that the students failed to develop a good understanding of the chunk. Some students focused entirely on trying to grasp the keywords as much as possible. As a result, they only managed to identify certain words but missed the holistic meaning of the chunk. In other words, students failed to recognize the sound while listening to the recorded materials. Students have problems with liaisons and reduced sound, so they were unable to recognize the words they heard.

2) Lack of Grammar Knowledge

Students' introspections show that they are lack of grammatical knowledge. For example,

Student 8: "I write down what I heard. Then I check it with

grammar."

Student 12: "Sometimes I use grammar to help me to listen to the chunk, but it failed.

These two examples related to the grammatical errors the students made. The students were not able to transcribe what they hear which failed to use grammar knowledge to correct the chunk they heard. Students do not understand the things that come into their ear, because of their weak grammar.

Grammatical knowledge is a problematic area for Chinese students. Grammatical errors mainly include missing articles, changing prepositions, not distinguishing between singular and plural nouns, and tense errors. Students are lack of grammar knowledge as a factor in this study also corresponded to the study of Emadi and Arabmofrad (2015), they investigated error analysis of listening comprehension errors in a dynamic assessment-based (DA) instruction. They found that pronunciation and grammar were frequently causing the errors. Particularly, this also might be because both of them investigated the factors leading to errors in listening which was produced by college students. Thus, they similarly found that the factors leading to the errors were students not familiar with the pronunciation and grammatical structures. This finding supports the factors of lack of grammar knowledge in this research. Thus, it is necessary for teachers to assist students to fix their problems.

3) Lack of vocabulary.

Students' comments show that students do not have sufficient vocabulary. For example,

Student 40: "I cannot understand the general meaning of the passage and some vocabularies."

These examples show that students are lack vocabulary. Or students cannot construct the auditory sounds, which triggers them unable to make sense of the words. They think about what the sound is like, and what grammar should be fitted in there. So instead of saying something students do not know, they pull in their understandings of what language should be about. After students get it, they pull out what they know of the vocabulary. Therefore, students create something wrong because their vocabulary is not good and they still fail to do it. However, students understand what language is and they have beliefs about what language learning is about. Therefore, they would say they do not understand the words and students seem to say they do not have vocabulary. Students do not get things that come into their ear, because they do not have sufficient vocabulary.

Vocabulary is an important factor in understanding spoken text. The vocabulary is found to be closely related to listening, just like reading (Milton, Wade, and Hopkins, 2010). In this study, students could not recognize the word as it was not appear in his /her schemata. Even the students endeavored to make other words instead. However, it was unsuccessful, and unknown words are an indicator that learners cannot understand spoken text. As Brown (2007) pointed out, EFL or ESL learners who are exposed to formal languages encounter difficulties in listening to "idioms, slang, and simplified forms"

With regards to the above statements, most of the students expressed comments or problems towards listening to passages. In sum, it can be concluded that there are 3 factors leading to the types of transcription errors from the results of the students' introspections: (1) Failure in meaning-making. (2) Lack of grammar knowledge. (3) Lack of vocabulary. These three factors in this study support the results of the previous studies (Lv, 2011; Jin, 2011; Ma, 2014, and Du, 2019). Similarly, all of these studies were conducted in the context of Chinese university students'. Lv (2011) investigated the types of errors in dictation, and then he found that there are three factors leading to the errors. (1) Failure in sound recognition, (2) misuses of grammar (Plural nouns misunderstood as singular nouns and violation of the principle of subject-verb agreement), and (3) lack of vocabulary. Two factors in this study are also similar to the study on analyzing the problems in the short-term dictation exam by Jin (2011). The findings indicated that there are 3 factors leading to the errors, including (1) difficulty in sound recognition (omission words caused by Perception), (2) lack of vocabulary, and (3) misuses of grammar. Hamouda (2013) investigated 60 first year English major students' listening comprehension problems of Qassim University. The research results showed that accent, pronunciation, speech rate, insufficient vocabulary, different speaker accents, inattention, anxiety and poor recording quality are the main problems Saudi learners encountered in their listening. Particularly, Ma (2014) did a study on investigating types of errors in dictation. There are three factors leading to the errors. (1) Misuse of grammar. (2) Difficulty in sound recognition (omission of words caused by Perception). (3) Missing and changing words caused by lack of vocabulary. Du (2019) also found 2 factors leading to the errors in TEM-4 passage dictation: (1) There are difficulties in sound recognition (words missing, words adding, words changing, words misworded), and (2) failure in Perception, misuses of grammar (articles, noun plural errors, and subject-predicate agreement errors).

Based on the similarities between this and previous studies, it can be considered that the lack of grammatical knowledge, the failure of meaning construction, and the lack of vocabulary have a certain impact on Chinese students' errors in listening. Implications for improvements in the teaching of listening will be provided in the next chapter.

4.2.1.2 Qualitative Analysis of Semi-structured Interviews

An interview was conducted after the 2 listening tasks. The researcher interviewed 10 students who were randomly selected. After the four steps of analyzing students' interview (see table 3.6), the findings revealed 4 factors leading to those 7 types of transcription errors and 4 types of passage summary errors: (1) L1 interference. (2) Failure in meaning-making. (3) Lack of vocabulary. (4) Speech rates. More details of each factor are presented below.

(1) L 1 interference

L1 interference has an influence on Chinese learners' nouns errors. Because listening is one of the first language skills that L2 learners naturally acquire early in their lives. They have developed seemingly the ability to understand spoken language without effort and attention (Siegel 2014). However, it is not common for L2 English learners, especially those who learn English in an EFL environment like China. As shown in Table 4.5, there are 1,978 grammatical errors. Students who have problems with grammatical structures would contribute more to L2 learners' inability to understand the chunks. In addition, students reported that what often confuses and frustrates them is that they can easily recognize and decode these words in print, but cannot do it when they are heard in speech. For example,

Incorrect: the best <u>place</u> to go

Correct: the best <u>places</u> to go

From the above example, it can be known that simple words and phrases may often be incorrectly perceived by L2 learners. Especially in Chinese learning, nouns show plural meanings without undergoing morphological changes. English is different from Chinese in this aspect. In Chinese, the singular and plural forms of nouns are the same, while in English, if necessary; all nouns should be changed to the corresponding plural forms.

L1 interference has an influence on Chinese learners' Preposition errors. For example,

Incorrect: What type food

Correct: What type of food

From the above example, it can be seen that prepositions are particularly difficult for Chinese learners because they need to consider both syntactic and lexical features when choosing prepositions in a specific context. In Chinese language, the preposition rules are not as strict and complicated as the English rules. The L1 background of Chinese learners is not very helpful for them to learn English prepositions. Therefore, the differences between the two languages in the same aspect cause confusion to Chinese learners. L1 interference hinders the listening comprehension of L2 learners.

(2) Failure in meaning-making.

Some similar phonemes can lead to different meanings between the words heard by the students and the words in the original text. Under these circumstances, some students cannot understand the meaning of the text. Some students even created other words based on the sounds they heard or just left out some words in a chunk when they could not transcribe the chunks. The relevant comments are presented below.

Student 2: "I do not have enough vocabulary. My perception skill is poor. I am not familiar with liaison that leads me miss some words in a chunk. Some of the speech' speed is fast to me, I cannot catch up with the chunk. So I cannot hear it clearly. Sometimes even I understand the meaning, I'm a little bit nervous, and I do not know how to write it. "

Student 8: "I have problem in liaison, reduced sound and insufficient vocabulary. I cannot understand some of the chunks. I do not how to write some words, and the speed of speech is fast to me. The chunk is too short to hear the main information. If I hear the same sound as the other words, I may write another word."

Besides, students also failed to make meaning of the passages when answering "Problems encountered in listening to the passages?" Students were not able to get the general meaning based on the contextual semantic judgment. As a result, some students could not get the general meaning of the passages. Some students made different stories when they cannot understand the sounds. The relevant comments are presented below.

Student 2: "I know that word, but when listen to it, I do not know which one I should choose."

Student5: "I thought about which word I should choose when I hear similar sounds."

Student 10: "I cannot understand some words; I cannot distinguish those strong and weak forms. I'm not clear about the liaison."

From the above extracts, it can be known that students fail to transcribe the chunks in this listening transcription activity. Students intend to construct what they expect to hear and ignore those things that are there. Likely, some students have not been fully constructed the meaning-making mechanism. Thus, they were unable to recognize them by sound although they know certain words.

(3) Lack of vocabulary.

Some students reported that they do not have enough auditory vocabulary to recognize the words that they were listening to. Some students gave up or just wrote down some other words instead of the chunk if they did not understand the vocabulary. The relevant comments are shown below.

Student 1: "I do not have enough vocabulary. I do not know how to read when I encounter some of them. Even I saw them before."

Student 4: "It is not like listening to the whole passage, if I cannot understand the word, and then I do not know how to write it."

Student 5: "I do not have enough vocabulary. I do not understand some words. They are too fast for me."

Besides, students' insufficient vocabulary is also found when answering "Problems encountered in listening to the passages?" Some students reported that they do not have enough auditory vocabulary to recognize the words that they were listening to. Some students gave up while they cannot understand the long sentences. The relevant comments are stated as follows.

Student 4: "There are some words I have not heard before."

Student 5: "I encountered some new words, and I do not know

how I should write them."

Student 9: "I do not know some new words. When I was organizing the main idea, I did not know how to write them."

Concerning the above extracts, it can be known that some students have a limited vocabulary when they listen to the chunks and passages. When students listen to unknown words, it would be very difficult and confusing for them to understand those words since many words had more than one meaning depending on the context. When students encounter a word they don't know, it may cause them to stop and think about the meaning of the word, causing them to miss the next part of the speech. Or students are lacking in vocabulary, thus they cannot construct the words because they had not stored the sounds of the vocabulary in their head. Therefore, by identifying this factor, students could be made aware of this problem and try to cope with it.

(4) Speech rates

Some students said that the speed of the chunk and passages were too fast for them. (More examples see appendix I)

Student 4: *I write down what I heard, I heard the chunk incompletely on the first time, because the speed of the chunk is too fast, I can only write scattered words first.*"

Student 8: I have problem in liaison and reduced words and insufficient vocabulary. I cannot understand some of the chunks. I do not how to write some words, and the speed of speech is fast to me. The chunk is too short to hear the main information. If I hear the same sound as the other words, I may write another word. Some students also reported that they think the speed of the passages is too fast. For example,

Student 5: The speed of the two passages is extremely fast for me. Sometimes I understand the meaning but I cannot write so much after listening. I do not know some words. I can only write down abbreviation.

Student 8: The speed of the two passages is fast and I do not know some new words. When I was organizing the main idea, I did not know how to write them.

The ability to capture main ideas and understand speech could be affected by the speech rate. Students were unable to recognize sounds during the listening process, because the fast speed of the text causes them to miss the beginning of the listening text and the subsequent parts of the text when thinking about the meaning of the previous part. Therefore, students failed to deal with the speech rate to construct the meaning of chunks and passages.

In sum, to answer question 2 the qualitative data obtained through the students' introspections and interviews were analyzed. Three factors were found in students' introspection. Four factors were found in students' interviews. But some factors are overlapped. In total, five factors are leading to the types of transcription errors in chunks and passages. 1) L1 interference, 2) Lack of vocabulary, 3) Lack of grammar knowledge, 4) Failure in meaning-making, and 5) Speech rate.

4.3 Summary

This chapter includes the findings and discussions of the study. Both the quantitative data obtained from students' transcription activity and the qualitative data

obtained from the students' introspections and interviews were collected to analyze and answer the research questions. The results of the study showed that there are 7 types of errors when students listen to chunks. (See table 4.21) The most frequent type of error that occurred was students attempting to produce answers that sound like the original text no matter how unlikely the words happen to be. The second frequently committed type of error was students cannot manage to catch a single word in a chunk. The third frequent type fell into the errors those students were unable to figure out one word in a chunk. This type of error was then followed by errors in grammar. This includes the omission of articles ("an" and "the", or the insertion of an extra "a" when it did not appear), tenses (especially the misuse of the present perfect tense), errors in conjunction, nouns (singular/ plural forms), demonstrative pronouns and prepositions. The fifth frequent type of error is students fail to recognize the phonemes ([i:] & [e1], [ts] & [z]), followed by errors in liaisons and reduced sounds. The last type of error is students can write the correct answer on the first attempt, but change it (incorrectly) on their second or third attempt.

	Error type	Rank
1.	Students attempt to make answers sound like the original text without	
	considering the context, even if the words and grammar are wrong or non-	1
	existent.	
2.	Students can transcribe few words, but still failed to identify the whole chunk.	2
3.	Students can transcribe most of the chunks, but failed to identify just one	3
	word.	3
4.	Students have problems with grammar.	4
5.	Students have problems with the following phonemes: /i:/& /eɪ/; /ts/ & /z/.	5
6.	Students have problems with the Perception.	6
7.	Students can write the correct answer on the first attempts, but change it	7
	(incorrectly) on their second or third attempt.	7

Table 4.21 Summary of 7 types transcription errors

Besides, there were 4 types of transcription errors produced by the participants of the study when they listened to the two passages. The most frequent error type was that students could only get the general topic of the passage (34.55%), Followed by students make other details, which are not relevant to this passage (32.73%), The third type of error is students can write the main story of the passage, only some details are not correct (19.09%), and the least frequent error type was errors students write something is contrary to the passage (13.63%). (See table 4.22)

Table 4.22 Summary of 4 types transcription errors

Error Type	Rank
1. General understanding	1
2. Details are not relevant	2
3. Details	3
4. Details are contradictory	4

The students expressed their comments towards the students' introspections and interviews parts. It showed that there are 5 factors leading to the types of transcription errors when students listening to the chunks and passages. (See table 4.23)

 Table 4.23 Students' reasons leading to the transcription errors

Students' reasons

- 1. L1 interference.
- 2. Failure in meaning-making.
- 3. Lack of grammar knowledge.
- 4. Lack of vocabulary.
- 5. Speech rates.

CHAPTER 5

CONCLUSION

This chapter includes four parts. The first part briefly summarizes the main findings of the research. The second part puts forward some pedagogic implication based on the results of this study. The third part discusses the limitations of the research. Finally, the fourth part offers some suggestions for further studies to conclude this thesis.

5.1 Summary of the Study

5.1.1 Answers to Research Question 1

What kinds of transcription errors do Chinese university-EFL students make when listening to recorded audio materials?

The first question is to investigate the types of transcription errors that Chinese students make when listening to English audio recordings. Forty-seven English major students from second-year participated in the study. Quantitative data were collected through students' listening transcription activity to answer the research question. The results show that students produced 7 types of transcription errors when listening to chunks and 4 types of transcription errors in the passage summary.

These results show the value of knowing students' problems by adapting the error analysis steps employed in this study such as collecting students' transcription errors, categorizing errors, describing and explaining students' errors. These steps offer researchers and teachers a better understanding of how the students construct meaning in listening and where they encounter problems.

Moreover, the outcomes of the study also shed new light on the possibility of solving students' problems by providing corrective measures. In addition to group information, this study also offered specific error profiles for each student, which revealed individual students' problems. Each student's errors can be used to design instructions or interventions to provide specific feedback. Students' repeated error patterns provided the researcher with information about the students' listening processes. Thus these repeat patterns provide information about not only the individuals in the group but about the performance of the group itself.

5.1.2 Answers to Research Question 2

What are the causes leading to transcription errors when Chinese university-EFL students listen to recorded audio materials?

The second question is to explore the causes leading to those kinds of transcription errors. Qualitative data were collected from students' introspections and Semi-structured interviews to answer this research question. Interviews were carried out with 10 of the participating students. The data gathered from students' introspection and semi-structured interviews offered in-depth insights into this question. The results show that 5 causes could be affecting students' listening: (1) L1 interference, (2) Lack of vocabulary, (3) Lack of grammatical knowledge, (4) Failure in meaning-making, and (5) Speech rate. The results of this study offer some practical evidence to research on language learners' reasons for making errors in L2 listening. Specifically,

These five cuases play an essential role in improving the listening/language learning ability of learners. Thus, in-depth research of these areas may offer valuable starting points for researchers and teachers. These can only be starting points as some of the conclusions drawn are based on opinions produced by students. While the way they formulated their problems may be genuine, because they truly believe them, they may not be 100% accurate as they are based on feeling rather than scientific analysis. At the same time, the researcher's analysis is necessarily limited to her observations taken in conjunction with student's comments. Errors are, at best, only reflections of students' processing systems and by their very nature do not give direct access to these systems. We can be sure of the errors produced but their causes, for the moment, remain beyond precise definition. Further research, ideally including use of neuroscientific evidence will help clarify issues in due course.

5.2 Pedagogic Implications

The findings of this study bring potential enlightenment to the teaching practice of English listening in Chinese universities in China. It is hoped that the implications can shed light on the way teachers teach listening, diagnose students' problems by utilizing EA, and use the factors for solving students' problems. To be more specific, the following implications can be drawn from the study:

5.2.1 For Teachers

The research method adopted here could be useful for teachers who want to discover students' problems (a) in listening and (b) more general problems, (as the listening problems are often a reflection of more general problems). To the extent that corrective measures can be devised, these will be of assistance for both sets of problems. Teachers can follow the error analysis steps (See Table 4.1) to collect students' errors. Then, the collected errors will provide information about the learners' (a) listening

skills and (b) language ability in general. This information will partially reveal the student's learning processes and will help language teachers determine what needs to be taught.

The error analysis can provide teachers with at least three kinds of information:

(1) Student information. This includes (a) students' listening procedures and(b) their general language problems including areas of special difficulty.

(2) Information about the class: This includes how the class as a group is performing. Although errors are individual, they are also likely to be distributed normally within each class, thus enabling teachers to construct class performance profiles that can, in turn, lead to the assessment of class performance, facilitate performance comparisons between classes, and enable syllabus modifications in response to unpredicted and unpredictable issues with the course.

(3) Information about the level of difficulty of the texts used in the error analysis with any specific group or groups of learners. The analyses of students' transcriptions (see table 4.11), will help teachers establish the difficulty levels of texts and to use that information to improve teaching procedure and course curriculum. For example, teachers might get a group of students to listen to a text and transcribe chunks. On the basis of the transcription, they can identify the difficulty level of each chunk, predict where students in other groups might experience difficulty, and prepare for this eventuality. This valuable information would enable teachers to classify listening texts in ways designed to meet the needs of specific kinds of students. This could assist with the development of both individual and group resources for intensive and extensive listening. All of the above information could be saved in appropriately designed databases to be shared with teachers and researchers involved in developing learners' listening comprehension skills, thus generating a dynamic corpus of valuable information. Such a database could also serve as a repository of texts and techniques suitable for the development of listening comprehension skills.

Finally, access to the above information provides an opportunity for generating specific feedback in response to identified problems. Such feedback could be built into computer-based answer-evaluation and markup systems (for an example see Lian & Sangarun, 2017) where learners receive precise feedback for their answers in a listening-transcription activity. A version of such a system was developed by Lian (Cryle & Lian, 1985). It is an automated computer-based system that uses student's transcriptions to identify students' errors and then provide specific feedback to help students fix these errors. As students engage in an iterative process of transcription followed by specific feedback, they would modify their perceptual and comprehension systems to gradually reorganize their processing of the spoken language to arrive at the correct transcription. In due course, this would lead to an approximation of the audio processing of a competent speaker of English. This system is a good example of instructional activity based on precision language education, which provides precise feedback for listener's errors in a listening-transcription task.

5.2.2 For Learners

Errors can be considered as a valuable device for helping learners become aware of their difficulties, identify them, and learn to deal with them. In short, learners can learn from their own errors provided that they are flagged somehow. Especially, in this study, students' errors were consolidated into each student's profile, which can then be provided as an example of using students' production of errors as their feedback for improving their listening.

As flagged in the previous section, "a one-size-fits-all" teaching approach cannot meet students' needs and solve individual students' specific listening problems. On the contrary, the precision education approach aims to avoid the one-size-fits-all approach to solve individual students' learning problems and design specific corrections to better meet students' demands (Lian & Sangarun, 2017). Thus, using the precision education approach as a reference point, students can get precise feedback after students listen and answer the listening-transcription activity. (See figure 5.1).

In this section, you will hear a conversation chunk by chunk for a total of three times for each sequence.

Chunk 1. Please listen carefully and write down what you think you heard in the box below. When you have made your guess, click the Verify button and follow the instructions. Please click the *Previous chunk* button to take a look at the previous chunk and try to make sense of the full sentence. ัยเทคโนโลยีสุร

Verify

About this things

Previous chunk

Figure 5.1 Self- managed online learning system

The student then checks the answer. A marked-up version will be given to their response: "about this things"

In this section, you will hear a conversation chunk by chunk for a total of three times for each sequence.

Chunk 1. Please listen carefully and write down what you think you heard in the box below. When you have made your guess, click the *Verify* button and follow the instructions. Please click the *Previous chunk* button to take a look at the previous chunk and try to make sense of the full sentence.



Figure 5.1 Self- managed online learning system (Cont.)

The student clicks on the underlined words "this" and gets feedback.

In this section, you will hear a conversation chunk by chunk for a total of three times for each sequence. Chunk 1. Please listen carefully and write down what you think you heard in the box below. When you have made your guess, click the *Verify* button and follow the instructions. Please click the *Previous chunk* button to take a look at the previous chunk and try to make sense of the full sentence. About this things about <u>this</u> things Verify Previous chunk There is a word that you are not hearing correctly. Remember this and listen again.

Figure 5.1 Self- managed online learning system (Cont.)

During the process of providing feedback, the student discovers that "about" and "things" are correct, but that "this" is not correct. With this information in mind, they should listen again more critically (and differently) to try to make sense of the chunk drawing on grammatical and other knowledge to help them construct a better answer.

In so doing, students would learn to comprehend the spoken language better by adjusting their internal processing mechanisms. By being made aware of the problems, students would become more efficient and effective in modifying their incorrect answers not only in this instance but in other similar instances as well as their processing mechanisms would be improved. Students' unsuccessful attempts provide teachers with students' processing information. In effect, an approach such as this provides students with an individualized listening environment by fully or partially meeting their personal needs (i.e. the needs that they actually experience as they interact with the software and the task it requires of them). Meanwhile, this will also reduce the burden of teachers who teach listening. Teachers will not need to spend time preparing for their listening activities and playing audio in the classroom and will be able to save a great deal of time. They only need to learn how to operate the system, provide instructions/assistance when necessary to prepare lessons. Information from error analysis would feed into such a system. Different errors would be accumulated over time and lessons/student interactions would be refined progressively. Such a collection of errors could also be used as a corpus for future research.

5.2.3 For Researchers

This study provides researchers with an example of using specific error analysis steps to collect, categorize, describe, and explain students' errors (See table4.1).

The results of this research suggest that adopting EA in listening research brings fruitful results. The method of letting students listen to the transcriptions chunk by chunk in this study not only provides students with a chance for critical listening but also offers researchers a deeper understanding of listeners' meaning-making mechanisms. Therefore, this research method could apply to researchers in the realm of error analysis in listening.

Moreover, the current data of seven types of transcription errors and the repeated error patterns offers researchers information on the relationship between students' perceptions and learning. Researchers should keep in mind that the meaningmaking mechanism of each learner is different and unique. Listening is an act of making meaning. Therefore, listening resources and tools used to access listening should be carefully selected to support meaning-making.

The findings show that L1 interference, lack of vocabulary, lack of grammar knowledge, failure in meaning-making, and speech rate are related to students' errors and their listening ability. However, this connection may depend on the language experience as well as the proficiency of learners, and the nature of the listening tasks. Considering these factors, researchers should set clear goals and objectives when conducting research.

5.2.4 For educators and policymakers

One of the main messages from the errors identified in this research is that it is necessary to re-conceptualize what language learning looks like in general and what the listening process should look like in particular. The bottom-up and top-down listening process applied and used to construct the tasks in the EA supplied a guiding point for further listening research. In this study, the task of transcribing chunks allows for deep probing of the listeners' meaning-making mechanisms not only at the linguistic level but also in interaction with the higher level units of meaning to respect the highlevel inferential aspects of the interactive model of listening in the context of a reasonably realistic task. This listening process is unique to each learner. Thus, the needs of learners should be respected, and only through a flexible, dynamic, and adaptable learning system can their needs be met. At the same time there were some commonalities between listeners in the errors that they produced thus enabling some predictions to be made. While these predictions do not apply to all, they are of value. These ideas should be introduced to educators and policy-makers who can incorporate the notion of error analysis and response to errors in their teacher development programs. This will help improve teaching and learning at both the individual and group levels.

Teacher education is the most important contributor to the transformation of how to teach listening. The potential curriculum of any teacher education program would include not only theoretical perspectives but also the knowledge of how to build a computer-based error feedback and markup system embedded within a precision education model. For best results, online error feedback systems require large databases. Students and teachers could contribute to such a database and provide a growing database of unpredicted and unpredicted error data to build into listening comprehension programs. The construction of such databases should be encouraged by government, educational policymakers and teaching institutions.

In short, the implications mentioned above are derived from the results of this research. They included all the problems found in this research. Thus, the researcher hopes that they could be helpful for further studies.

5.3 Limitations of the Study

Through students' transcriptions, introspections, and interviews, this study provided us with a better understanding of the possible impacts of error analysis on listening instruction programs. However, this study still has limitations that could be addressed for future studies.

First, this is a snapshot of the situation, in a specific place, at a specific time and with specific participants. There is a concern about the generalizability of the findings. The participants were Chinese university learners of English with an intermediate proficiency level. The findings from these subjects might not be generalized to the entire Chinese learner. Therefore, the findings of the study should be interpreted with caution when applying to different learning contexts. Future studies should target larger samples in a range of other universities.

Second, participants in this study consisted of intermediate EFL learners. This study does not include students from other majors. Therefore, the findings of the study may not be generalizable to non-English major students. Future research should target different groups of students with different proficiency levels to fully benefit from the value of EA in improving EFL listening ability.

Third, the findings were from student's transcription of three conversations and two passages in CET-4 listening, which provide limited results. It could be difficult to generalize the findings to other types of texts. Therefore, more different types of texts are needed to investigate students' errors of using other software with more flexible functions.

Last, the study used a mixed methods approach combining students' introspection and interview to investigate various factors. This may affect the generalization of these results to other participants who do not know themselves well. It was not possible to identify exactly which factors had the greatest effect on the breakdown of learners' listening ability. Despite the limitation of the study, the researcher hopes that it can provide some guidelines for further studies on listening.

5.4 Recommendations for Future Research

On the basis of the limitations discussed above, some recommendations can be made for further studies.

First, the current study drew its subjects from only one university. Thus, the results obtained from this study cannot be generalized to the entire Chinese learners. Large-scale research is recommended to increase the universality,. Students from other universities in China or different regions could be included.

Second, the subjects in this study only came from a major in a Chinese university, which created some obstacles to the extension of the research results to other majors. Students who specialize in other majors can also be the objects of future studies. Thus, the researchers suggest that research should be conducted in other majors to increase the possibility of generalization of research results.

Third, listening to a transcription chunk by chunk was found to be useful for EFL learners and teachers in the present study. However, as mentioned before, this study was examining errors in a small context, which provided limited results. Thus, teachers can collect more authentic listening materials and make a collection of students' errors to build a large online database of error patterns to serve their teaching practice.

Last, the finding of this research has shown that five factors can affect students' listening ability. However, due to several factors in the study as mentioned above, and

which factor had the most influence was still unknown. Therefore, further studies need to be conducted to determine which factor is the most decisive one in the listening progress.

In summary, the findings have significant implications for improvements in the teaching of listening comprehension. It includes the designing of lesson-plan after the identification of text difficulty, the development of listening corrective materials through students' error profiles, and acquiring a deeper understanding between students' perceptions and learning. Moreover, this study may also offer valuable information for researchers who are interested in exploring error analysis into their future scholarly endeavors in listening teaching and research.

These remarks bring this thesis to an end. Research questions have been answered (at least tentatively), and many questions have been raised that need to be solved in the future. The researcher hope that the questions answered would provide a principled starting point for us to improve the listening proficiency of EFL majors' students in Chinese universities.

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APPENDIX A

Listening Material of Task 1---Original Texts

Conversation 1

M: Hi, Jane. How's everything going?

- W: So far so good. I've just finished my last exam.
- M: Good. The term is coming to an end. Do you think we should take a holiday overseas to relax and have fun? I've saved my tips from my waiter job these past few months, and I should have enough by July.
- W: Yes, that's a wonderful idea. I've got a little put aside for a rainy day, but I might need to earn a little more before we go. By the way, what's it like working in a restaurant?
- M: Well, it's really tough, as working a 10-hour shift is like hell. I'm not sure it'll suit you. But it's pretty cool if your boss is all right. Do you think we should invite some others to come along?
- W: Yes, we could ask Tom and Tracy if they are interested. I haven't been abroad for a long while. And it would be great to go somewhere by the sea. I can't wait, and if Tom goes, we could go sailing. He has a lot experience with boats, and it'll work out a lot cheaper to hire one if there's more of us to share the cost.
- M: So, that's a plan. We'll save as much as we can, and go sailing next July. Let's say, Spain, but anywhere cheap would be fine.
- W: Ok. But first we'd better contact Tom and Tracy, and see if they are up for it. If not, it'll be back to the drawing board.

Conversation 2

- M: Mr. Brown's lectures are so boring.
- F: Yes, he is not a very exciting speaker. But the subject is interesting.
- M: During every one of his lectures, I try to listen. I really try, but after about ten minutes, my mind begins to wander and I lose concentration. But I see that you seem to be OK. How do you stay focused through the entire hour?
- **F:** Well, what I do is keep my pen moving.
- M: What do you mean?
- **F:** It's a method of active concentration I read about. One of the most effective ways to concentrate is to write things down. But it has to be done by hand, not typing on a keyboard. You see, writing by hand forces you to actually engage with what you're learning in a more physical way.
- M: Do you review your notes afterwards then?
- F: Sometimes, but that's not important. My notes may or may not be useful. But the point is that by writing down what Mr. Brown says, I can follow his line of thinking more easily. In fact, sometimes I draw a little too.
- M: You draw in class? And that helps you pay attention?
- F: Yes, honesty, it works for me. I just draw little lines and nonsense really. It was also in that article I read. It can keep the mind active, prevent getting bored and help to concentrate. Again, the point is to listen hard while keeping the pen moving. If I'm at home and I need to study, what I do is read out loud. It has a similar effect to writing by hand. It helps memorize information in a physical way.

Conversation 3

- **M:** Have you heard about the new restaurant, the Pearl? Susan and I are going to try it out this weekend. We have a reservation on Saturday at 7 o'clock. I can call to add two more to the table if you'd like.
- **F:** That sounds great. We'd love to join you. You always seem to know the best places to go. Where do you hear about these things?
- **M:** I have a habit of reading (614) Magazine. It has all the information on local events within the (614) column code area.
- F: That was a clever name for the magazine then. Does it only focus on new restaurant openings?
- M: They have other information too. Things like concerts, festivals and small shops. I think the restaurant information and reviews are the most exciting though. Each year they also sponsor a local event called Restaurant Week.
- **F:** Restaurant Week? What's that?
- M: Oh, it's wonderful. All the stylish restaurants participate. They have special set menus for the week, usually in spring, at a number of different price points. Susan and I go to at least three different places during the event. It's a great opportunity to try some of the more expensive restaurants at a discounted price and try something new. That's how we found the Pearl, actually.
- F: Wow, that's an event I would be interested in. When will it be happening this year?
- M: You are in luck. Restaurant Week starts in just a few days, the first Sunday in May. Let's make sure they set a double date during the event. Just let me know what type of food you would like to try.
- F: Okay, I will.

APPENDIX B

Listening Material of Task 1

Conversation 1

Chunk 1	Hi, Jane.	
Chunk 2	How's everything going?	
Chunk 3	So far so good.	
Chunk 4	I've just finished	
Chunk 5	my last exam.	
Chunk 6	Good.	
Chunk 7	The term	
Chunk 8	is coming to an end.	
Chunk 9	Do you think	
Chunk 10	we should	
Chunk 11	take a holida <mark>y o</mark> verseas	
Chunk 12	to relax	
Chunk 13	and have fun?	
Chunk 14	I've saved my tips	
Chunk 15	from my waiter job	
Chunk 16	these past few months,	
Chunk 17	and I should have enough	
Chunk 18	by July.	
Chunk 19	Yes, that's a wonderful idea.	
Chunk 20	I've got a little	
Chunk 21 💋	put aside	
Chunk 22	for a rainy day,	
Chunk 23	but I might need	
Chunk 24	to earn a little more	
Chunk 25	before we go.	
Chunk 26	By the way,	
Chunk 27	What's it like	
Chunk 28	working in a restaurant?	
Chunk 29	Well, it's really tough,	
Chunk 30	as working	
Chunk 31	a 10-hour shift	
Chunk 32	is like hell.	
Chunk 33	I'm not sure	
Chunk 34	it'll suit you.	
Chunk 35	But it's pretty cool	
Chunk 36	if your boss	
Chunk 37	is all right.	

Chunk 38	Do you think		
Chunk39	we should invite some others		
Chunk 40	to come along?		
Chunk 41	Yes, we could ask		
Chunk 42	Tom and Tracy		
Chunk 43	if they are interested.		
Chunk 44	I haven't been abroad		
Chunk 45	for a long while.		
Chunk 46	And it would be great		
Chunk 47	to go somewhere		
Chunk 48	by the sea.		
Chunk 49	I can't wait,		
Chunk 50	and		
Chunk 51	if Tom goes,		
Chunk 52	we could go sailing.		
Chunk 53	He has a lot experience		
Chunk 54	with boats,		
Chunk 55	and it'll work out		
Chunk 56	a lot cheaper		
Chunk 57	to hire one		
Chunk 58	if there's more of us		
Chunk 59	to share the cost.		
Chunk 60	So,		
Chunk 61	that's a plan.		
Chunk 62	We'll save		
Chunk 63	as much as we can,		
Chunk 64	and go sailing		
Chunk 65	next July.		
Chunk 66	Let's say, Spain,		
Chunk 67	but anywhere cheap		
Chunk 68	would be fine.		
Chunk 69	Ok. Asia		
Chunk 70	But first all all all all all all all all all al		
Chunk 71	we'd better contact		
Chunk 72	Tom and Tracy,		
Chunk 73	and see		
Chunk 74	if they are up for it.		
Chunk 75	If not,		
Chunk 76	it'll be back		
Chunk 77	to the drawing board.		

Conversation 2

Chunk 2are so boring.Chunk 3Yes,Chunk 4he is notChunk 5a very exciting speaker.Chunk 6But the subjectChunk 7is interesting.Chunk 8During every one ofChunk 9his lectures,Chunk 10I try to listen.Chunk 11I really try,Chunk 12but after about ten minutes,Chunk 13My mind begins to wanderChunk 14and 1 lose concentration.Chunk 15But 1 seeChunk 16that you seem to be ok.Chunk 17How do you stay focusedChunk 18through the entire hour?Chunk 19Well, what I doChunk 21What do you mean?Chunk 22It's a methodChunk 23of active concentrationChunk 24I read about.Chunk 25One ofChunk 26the most effective waysChunk 28is to write things down.Chunk 30by hand,Chunk 31not typingChunk 32or a keyboard.Chunk 33You see,Chunk 34writing by handChunk 35forces youChunk 36to actually engage withChunk 37what you're learningChunk 38in a more physical way.Chunk 34miting by handChunk 35forces youChunk 36to actually engage withChunk 37what you're learningChunk 40review your notesChunk 41afterward	Chunk 1	Mr. Brown's lectures		
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Chunk 43 but that's not important.	Chunk 42	Sometimes,		
· · · · · · · · · · · · · · · · · · ·	Chunk 43	but that's not important.		
	Chunk 44			

Chunk 45	may or may not be useful.
Chunk 46	But the point is that
Chunk 47	by writing down
Chunk 48	what Mr.Brown says,
Chunk 49	I can follow
Chunk 50	his line of thinking
Chunk 51	more easily.
Chunk 52	In fact,
Chunk 53	sometimes
Chunk 54	I draw a little too.
Chunk 55	You draw
Chunk 56	in class?
Chunk 57	And that helps you
Chunk 58	pay attention?
Chunk 59	Yes, honesty,
Chunk 60	it works for me.
Chunk 61	I just draw little lines
Chunk 62	and nonsense really.
Chunk 63	It was also
Chunk 64	in that article
Chunk 65	I read.
Chunk 66	It can keep the mind active,
Chunk 67	prevent getting bored
Chunk 68	and help to concentrate.
Chunk 69	Again,
Chunk 70	the point is
Chunk 71	to listen hard
Chunk 72	while keeping the pen moving.
Chunk 73	If I'm at home
Chunk 74	and I need to study,
Chunk 75	what I do
Chunk 76	is read out loud.
Chunk 77	It has a similar effect
Chunk 78	to writing by hand.
Chunk 79	It helps memorize information
Chunk 80	in a physical way.

Conversation 3

Chunk 1	Have you heard about
Chunk 2	the new restaurant,
Chunk 3	the Pearl?
Chunk 4	Susan and I
Chunk 5	are going
Chunk 6	to try it out
Chunk 7	this weekend.
Chunk 8	We have a reservation
Chunk 9	on Saturday
Chunk 10	at 7 o'clock.
Chunk 11	I can call
Chunk 12	to add two more
Chunk 13	to the table
Chunk 14	if you'd like.
Chunk 15	That sounds great.
Chunk 16	We'd love
Chunk 17	to join you.
Chunk 18	You always seem
Chunk 19	to know
Chunk 20	the best places to go.
Chunk 21	Where do you hear
Chunk 22	about these things?
Chunk 23	I have a habit
Chunk 24	of reading (614) Magazine.
Chunk 25	It has all the information
Chunk 26	on local events
Chunk 27	within the (614)
Chunk 28	column code area.
Chunk 29	That was a clever name
Chunk 30	for the magazine then.
Chunk 31	Does it only focus
Chunk 32	on new restaurant openings?
Chunk 33	They have
Chunk 34	other information
Chunk 35	too.
Chunk 36	Things like
Chunk 37	concerts,
Chunk 38	festivals
Chunk 39	and small shops.
Chunk 40	I think
Chunk 41	the restaurant information
Chunk 42	and reviews
Chunk 43	are the most exciting though.
Chunk 44	Each year

Chunk 45	they also sponsor		
Chunk 46	a local event		
Chunk 47	called Restaurant Week.		
Chunk 48	Restaurant Week?		
Chunk 49	What's that?		
Chunk 50	Oh, it's wonderful.		
Chunk 51	All the stylish restaurants		
Chunk 52	participate.		
Chunk 53	They have special set menus		
Chunk 54	for the week,		
Chunk 55	usually in spring,		
Chunk 56	at a number of different price points.		
Chunk 57	Susan and I		
Chunk 58	go to		
Chunk 59	at least		
Chunk 60	three different places		
Chunk 61	during the event.		
Chunk 62	It's a great opportunity		
Chunk 63	to try		
Chunk 64	some of the more expensive restaurants		
Chunk 65	at a discounted price		
Chunk 66	and try something new.		
Chunk 67	That's how we found		
Chunk 68	the Pearl,		
Chunk 69	actually.		
Chunk 70	Wow, that's an event		
Chunk 71	I would be interested in.		
Chunk 72	When will it be happening		
Chunk 73	this year?		
Chunk 74	You are in luck.		
Chunk 75	Restaurant Week starts		
Chunk 76	in just a few days,		
Chunk 77	the first Sunday		
Chunk 78	in May.		
Chunk 79	Let's make sure to set		
Chunk 80	a double date		
Chunk 81	during the event.		
Chunk 82	Just let me know		
Chunk 83	what type of food		
Chunk 84	you would like to try.		
Chunk 85	Okay, I will.		

APPENDIX C

Listening Material of Task 2

Passage 1

It's not your imagination. Traffic in the U. S. is actually getting worse. Americans drove more miles last year than any other year on record. The U. S. Department of Transportation says Americans drove nearly 3,150 billion miles last year. That's about the same distance as 337 round trips from Earth to Pluto. The previous record was 3,003 billion miles in 2007 before the economic recession and high gas prices. The traffic increase comes at the same time as gas prices drop significantly, the current average gas price in the U. S. is 1.77\$ per gallon. A year ago, it was 2.31\$ per gallon, it was often much higher in recent years. A transportation expert told the reporter the job growth likely plays a part as well, along with some people driving longer distances to and from work.

And so, all this means more traffic jams on the road. The Texas A&M travel institute found that rush-hour travelers spent an extra 42 hours on the road last year because of travel delays. Now that is depressing.

Passage 2

Fast food, it turns out, isn't quite as fast as it used to be. A new study finds that McDonald's posted its slowest drive-through times since this survey was first conducted fifteen years ago.

At McDonald's, customers will spend on average three minutes and nine seconds from the time they place their orders until they receive their food. That's about ten seconds more than the industry average-and a lot slower than a decade ago, according to the study, which was commissioned by QSR, an industry trade publication. And McDonald's wasn't alone in slowing down. Other chains also saw their drive-through performance slow down. Among the reasons for the slower service, today there are more choices on the menu, and the products themselves are more complex and take longer to prepare. Speed, of course, is essential to the drive-through experience.

And drive-troughs are hugely important to chains, such as McDonald's, Burger King and Taco Bell. "Usually the drive-through accounts for sixty to seventy percent of all business that goes through a fast-food restaurant," notes Sam Oches, editor of QSR. Of course, consumers also want their orders prepared correctly and on that score, Oches says, "accuracy is still really high."

APPENDIX D

Task 1

In this section, you will hear a conversation chunk by chunk for a total of three times for each sequence.

Chunk 1 (first time) Type the words you think you heard. You have 30 seconds.

Chunk 1(second time) Type the words you think you heard. You have 30 seconds.

Chunk 1(third time) Type the words you think you heard. You have 30 seconds.

Try to write down in Chinese as much as you can about what is going through your head or your problems while you are listening to three chunks above. (请用中文尽

可能多地写下你在这三次听力中所遇到的问题)

7.5r

APPENDIX E

Task 2



APPENDIX F

Semi-structured Interview Questions

- 1. How did you listen to chunks?
- 2. How did you listen to passage?
- 3. What are your listening strategies while listening to chunks?
- 4. What are your listening strategies when listening to passage?
- 5. What kind of problems did you encounter while listening to chunks? How did you solve these problems?
- 6. What kind of problems did you encounter while listening to the passage? How did you solve these problems?
- 7. What can the teacher do to help you understand the text better? How would you improve your English listening skills?



Semi-structured Interview Questions

(Chinese version)

- 1. 你是怎么听语块的?
- 2. 你是怎么听文章的?
- 3. 你听语块时的听力策略有哪些?
- 4. 你听文章时的听力策略有哪些?
- 5. 你听语块时,遇到了什么样的问题? 你是怎么解决这些问题的?
- 6. 你听文章时,遇到了什么样的问题? 你是怎么解决这些问题的?
- 7. 老师可以做些什么来帮助你更好地理解文章? 你将会如何提高英语听力?



APPENDIX G

THE CONSENT FORM

The research project you will participate in is designed to investigate the types of transcription errors that Chinese students make when listening to English audio materials and to investigate the reasons why students make those kinds of transcription errors. It will be conducted within 5 days in the Academic Year 2019. Your role is to perform two listening transcription activities. Moreover, after the listening transcription activity, about 10 volunteers will be invited to participate in an interview. The interview will last about 15 minutes.

Students' error is considered as a valuable device for helping learners become aware of their problems in language learning. Therefore, this research will investigate the causes leading to those types of transcription errors. As a result, you will benefit from this study by being informed about your errors.

The research poses no risks to participants. The researcher will not be sharing any information about you with anyone outside of the research. The information that the researcher collects from this research project will be kept private. Your identity will be anonymous. Your participation in this project is voluntary. If you do not agree to participate, you can withdraw at any time without penalty. Your drop-out of the research will not affect your scores.

If you have any questions related to this research project, please feel free to contact me (Phone: 18708553648). My email address is 912665498@qq.com.

I HAVE READ THIS CONSENT FORM AND HAD THE OPPORTUNITY TO ASK QUESTIONS ABOUT THE RESEARCH PROJECT. I UNDERSTAND THAT MY PARTICIPATION IS VOLUNTARY AND THAT I AM FREE TO WITHDRAW AT ANY TIME. I VOLUNTARILY AGREE TO PARTICIPATE IN THIS PROJECT.

Student's Signature	Date
Ett	10
Researcher's Signature	auna Date 235

APPENDIX H

Details of T5 errors (only one word wrong)

Details-verbs		
Verbs	104	is
Verbs	52	are
Verbs	47	draw
Verbs	40	sponsor
Verbs	32	seem
Verbs	30	ask
Verbs	26	concentrate
Verbs	26	see
Verbs	26	writing
Verbs	25	do
Verbs	25	follow
Verbs	21	heard
Verbs	18	have
Verbs	16	says
Verbs	14	contact
Verbs	12	earn
Verbs	11	focus
Verbs	9	join
Verbs	9	pay
Verbs	8	try
Verbs	8	typing
Verbs	7	has
Verbs	6	need
Verbs	5	prevent
Verbs Verbs	เราคโนโลยต	relax
Verbs	5	wander
Verbs	4	call
Verbs	4	know
Verbs	3	help
Verbs	3	hire
Verbs	3	keep
Verbs	3	review
Verbs	3	stay
Verbs	3	works
Verbs	2	back
Verbs	2	go
Verbs	2	right

Verbs	1	back
Details: nouns	1	1
Nouns	63	Pearl (place)
Nouns	45	sailing
Nouns	21	week
Nouns	20	event
Nouns	17	experience
Nouns	16	opportunity
Nouns	14	price
Nouns	14	term
Nouns	14	type
Nouns	13	cost
Nouns	12	July(month)
Nouns	9	mind
Nouns	9	date
Nouns	8	effect
Nouns	7	habit
Nouns	7	shift
Nouns	4	Sunday
Nouns	4	fact
Nouns	3	little
Nouns	3	year
Nouns	3	Spain(place)
Nouns	2	Tom(name)
Nouns	2	honesty
Nouns	1	Susan(name)
Nouns(plural)	35	notes
Nouns(plural)	31	places
Nouns(plural)	26	shops
Nouns(plural)	1500 [u[a80	ways
Nouns(plural)	14	things
Nouns(plural)	8	lectures
Nouns(plural)	8	events
Nouns(plural)	7	concerts
Conjunctions	121	but
Conjunctions	82	and
Conjunctions	62	as
Conjunctions	24	while
Conjunctions	13	if
Conjunctions	12	SO
Conjunctions	6	that
Conjunctions	3	how

Adverbs	39	first
Adverbs	37	too
Adverbs	32	overseas
Adverbs	25	hard
Adverbs	23	well
Adverbs	22	where
Adverbs	17	not
Adverbs	15	aside
Adverbs	15	really
Adverbs	15	so
Adverbs	11	down
Adverbs	11	then
Adverbs	9	easily
Adverbs	2	next
Adverbs	1	sometimes
Pronouns	117	it
Pronouns	33	Ι
Pronouns	20	everything
Pronouns	20	that
Pronouns	17	these
Pronouns	15	his
Pronouns	8	one
Pronouns	4	me
Pronouns	4	they
Pronouns	3	he
Pronouns	1	this
Pronouns	1	we
Pronouns	1	you
Prepositions	87	to
Prepositions /81a	550011280	of
Prepositions	44	in
Prepositions	15	during
Prepositions	11	for
Prepositions	10	before
Prepositions	7	by
Prepositions	5	at
Prepositions	3	on
Prepositions	1	from
Prepositions	1	through
Prepositions	1	with
Articles	180	a
Articles	61	the

Adjectives	31	tough
Adjectives	19	new
Adjectives	13	stylish
Adjectives	12	great
Adjectives	10	set
Adjectives	9	last
Adjectives	9	cheaper
Adjectives	5	physical
Adjectives	5	physical
Adjectives	3	some
Adjectives	2	every
Abbreviations	38	I've
Abbreviations	35	you'd
Abbreviations	11	we'd
Abbreviations	9	can't
Abbreviations	9	I'm
Abbreviations	6	haven't
Abbreviations	1	there's
Abbreviations	1	we'll
Abbreviations	1	we'll
Numerals	26	three
Numerals	12	four
Numerals	1	first
Modals	20	would
Modals	10	will



Appendix I

Students' interview answers

- Student 14: "I'm not sure the words I heard."
- Student 17: "I have problems with liaison and reduced sound."
- Student 19: I try to focus on listening as much as possible, and then think about the general meaning of the passage based on keywords."
- Student 24: Write down some of the keywords I heard first, and then add content after the second and third attempts."
- Student 6: "I have problem with liaison. I heard several words. I do not know which word is correct. My pronunciation skill is poor. It affects my listening skill."
- Student 7: "When the chunk includes liaison, I missed something. Similar pronunciation words also make me confused. If I do not understand that word, or I do not hear one of the words, it changes the meaning of that chunk."
- Student 9: "I cannot understand the chunk includes liaison. I cannot hear anything if sentences are been segmented like this. The speed of chunk is too fast to me. I do not know which word it is. The way of cutting the chunk is very strange. I cannot understand it."
- Student 10: "I cannot calm down if I do not know the liaison. I do not know how to write it even I hear that word. I'm familiar with that word, but I forget it at that time."
- Student 6: "Write down what I heard. Finally, I try to make the meaning possibly."
- Student 9: "When I hear similar sounds, I choose one to write first, and change it on the second time or third time."
- Student 9: The speed of chunk is too fast for me. I do not know which word it is. The way of segmenting the chunk is very strange. I cannot understand it.

Student 6: Some chunks are too short; their speed is too fast. It is difficult for me to catch up. It is not like listen to the whole passage, if I cannot understand the word, and then I do not know how to write it. As a result, I did not listen to it on the second and third time, and I was still thinking about how to write that word.

Student 5: I do not have enough vocabulary. I do not understand some words. They are too fast to me.



CURRICULUM VITAE

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