



2006-03-17

The Dominant Listening Strategy of Low-Proficiency Level Learners of Mandarin Chinese: Bottom-Up Processing or Top-Down Processing

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The Dominant Listening Strategy of Low-Proficiency Level Learners of Mandarin
Chinese: Bottom-Up Processing or Top-Down Processing

by

Chao-Chi (Teresa) Yang

A thesis submitted to the faculty of
Brigham Young University
in partial fulfillment of the requirements for the degree of

Master of Arts

Center for Language Studies
Brigham Young University

April 2006

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BRIGHAM YOUNG UNIVERSITY

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ABSTRACT

The Dominant Listening Strategy of Low-Proficiency Level Learners of Mandarin Chinese: Bottom-Up Processing or Top-Down Processing

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Master of Arts

Listening comprehension has been the forgotten skill in second language acquisition. However, in recent years, more and more studies have focused on listening comprehension and now acknowledge its importance in language acquisition. Empirical studies have explored how listeners use the two main listening processes (top-down processing and bottom-up processing). In this study, 31 low-proficiency level Mandarin Chinese as a foreign language (CFL) learners from Brigham Young University took the Chinese Computer Adaptive Language Test (CCALT) and listened to four listening passages, measured by idea unit analysis and local and global question types. The data from these measurements suggest that low-proficiency level CFL participants in this study used both top-down and bottom-up processing while they listened to short listening passages. The results suggest listening comprehension at various proficiency levels needs to be studied further in Chinese and with different types of listening passages.

ACKNOWLEDGMENTS

I would like to thank all of the people who have been emotionally and physically supporting me in the completion of this thesis. I am especially fortunate to have had a wonderful thesis committee. First, I would like to acknowledge my committee chair, Dr. Matthew Christensen, for his helpful guidance and comments. I would also like to express my sincere gratitude to my committee members, Dr. Wendy Baker and Dr. Lynn Henrichsen, for their encouragement and valuable suggestions on my thesis. I am also grateful to Kellyanne Ure for all the time she spent on my thesis and for being a great friend in supporting me and to John Bauman for his statistical support.

On a personal note, I would especially like to thank my family, who emotionally and spiritually comforted me through the challenging time of writing this thesis. This work could not have been completed without their support and encouragement.

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Chapter One: Introduction

Most research regarding language learning strategies has been devoted to reading, writing and speaking; however, empirical studies from the past decade have begun to focus more on listening comprehension in language acquisition. Ironically, in 1926 Rankin had already pointed out that listening comprehension plays a role in language acquisition. Then, in the late 1940s James Brown, Ralph Nichols and Carl Weaver, the fathers of listening comprehension studies, were the first to identify the role of listening in language acquisition. About this same time, Charles Fries' (1945) Oral Approach was very popular, and it emphasized the goal of "receptive understanding of the language when it is spoken" (p. 8). Later, however, audiolingualism reduced the role of listening to a mechanical "listen and repeat" level (Henrichsen, 1985). Finally, in the 1990s scholars again acknowledged the critical role of listening comprehension in language acquisition, revealing that listening ability not only contributes to speaking ability but also to overall language proficiency (Dunkel, 1991; Feyten, 1991; Oxford, 1993). Despite this rediscovery that listening comprehension plays a significant role in language acquisition, it still remains a "young field" that needs greater research attention (Oxford, 1993; Rubin, 1994).

Listening has been neglected not only in research, but also in the language

classroom because listening is viewed as an implicit, or passive, language skill. For example, learners usually acquire their listening skills through their personal experiences or practice without direct instruction. Listening is typically seen as a passive learning process because listeners process information internally. While speaking or writing, learners are required to produce utterances in spoken or written forms, which are easy to observe. When listening, however, learners process the information internally; they are not always required to produce external evidence of their understanding. Because in this sense listening is a passive learning activity and most language teachers use active learning activities, i.e., writing or speaking, in the classroom, language teachers often neglect the importance of listening. In addition, previous studies indicate that language teachers' knowledge about listening comprehension strategies is limited, and listening strategies have rarely been taught in the classroom nor have they been taught correctly (Rost, 1990). Language teachers also assume that students know how to listen and that listening skills will develop in the same way as in first language acquisition (Long, 1989). Nevertheless, teachers cannot assume that foreign language learners know how to develop listening strategies based on how they learned their native languages (Long, 1986; Omaggio, 1986).

However, from the 1950s to the late 1970s, pedagogical awareness of listening

strategies increased, and “these studies primarily emphasized students’ listening understanding and message comprehension competency” (Fyten, 1991, p. 174). Furthermore, Fyten (1991) suggested that when language teachers rely heavily on listening comprehension in the classroom and listening comprehension is the essential element of teaching, then students develop better listening skills and become more effective listeners. Though listening comprehension was previously considered a passive practice and was given little classroom attention, it is now considered anything but passive (Schmidt-Rinehart, 1994; Vandergrift, 1999). Vandergrift’s study (1999) indicates that listening comprehension is an active process in which learners must distinguish the differences between sounds, vocabulary, grammar, intonation, stress and context in order to interpret and respond to messages immediately. Listening comprehension has also been recognized in second language acquisition as an active but implicit process which involves complex problem solving skills (Byrnes, 1984; Call, 1985; Richard, 1983).

The concepts described above explain some of the reasons why many learners perform poorly in foreign language or struggle in their language progression. However, since the importance of listening comprehension has been realized, studies need to further the understanding of listening comprehension.

More specifically, if Chinese as a Foreign Language (CFL) learners become aware of listening strategies, then this may significantly influence their Chinese acquisition, specifically in regards to the acquisition of Mandarin Chinese for English speakers. Mandarin Chinese acquisition is difficult because it is one of the truly foreign languages for native English speakers; Mandarin Chinese is linguistically and culturally unrelated to Indo-European languages (Jordan & Walton, 1987). CFL learners need to understand Chinese syntax, pronunciation, morphemes, phonemes, semantics and even polysyllabic features unlike those in English and other Indo-European languages. Despite these features, the Chinese tonal system is the most recognizable feature in Chinese language acquisition, so this study will further discuss more unique aspects of the Chinese tonal system. Therefore, unlike English speakers who study other Indo-European languages, CFL learners face more challenges not only because of the complexity of the language itself and the new cultural aspects of the language, but also because of the unique aspect of a tonal system, in addition to a phonetic system. Learning the Mandarin Chinese tonal system is difficult, and without proper guidance and instruction, CFL learners become very frustrated while listening. It would be beneficial to CFL learners if listening strategies were taught; however, listening strategy research has not yet been

conducted in the area of CFL. Additionally, no studies have looked at CFL listeners' cognitive strategies (bottom-up processing and top-down processing). Although studies have focused on listening strategies in different areas, such as a variety of languages (English, Italian, Japanese, Russian and Spanish) and different types of audio texts (video texts, interaction listening and radio texts), studies have not yet examined how low-proficiency level CFL listeners actively process language information (this will be discussed in the next chapter).

The purpose of this study is to find which cognitive strategy (bottom-up processing or top-down processing) is dominantly used by CFL low-proficiency level learners. Bottom-up processing is based on the lexicon, while top-down processing uses awareness of existing background knowledge (Vandergrift, 2004). Furthermore, when CFL learners rely on bottom-up processing, second language teachers should teach listening strategies, such as predicting, guessing words from context, scanning and skimming. It is equally important to expose learners to top-down processing. When CFL learners rely on top-down processing, second language teachers should encourage the development of listener automaticity and help students become better listeners. Because these cognitive strategies affect language teaching, determining the balance between these processes is even more crucial for research in second language (L2) acquisition.

The studies reviewed in Chapter Two show the ways in which bottom-up and top-down processing dominate learners' listening process.

This present study is based on Osada's (2001) study, "What Strategy do Less-Proficient Learners Employ in Listening Comprehension?: A Reappraisal of Bottom-Up Processing and Top-Down Processing", which examined 91 less-proficient EFL listeners from Tokyo and studied whether those listeners relied on bottom-up processing or top-down processing. The results conclude that they used more bottom-up processing while they listened. However, the present study will address the following research question: Does bottom-up processing or top-down processing dominate in low-proficiency level learners of Mandarin Chinese use?

Definitions and Delimitations

The following definitions and delimitations are intended to clarify important concepts relevant to this research. In this study the definitions used for meta-cognitive strategies, cognitive strategies, bottom-up and top-down processing, local and global questions, idea units and low-proficiency level and higher-proficiency level listeners are based on the strategies of Rubin (1994), Chafe (1982), and this researcher.

Definitions

1. Meta-cognitive strategies involve how listeners listen to the listening passage and

- which strategies they use to plan, monitor and evaluate comprehension (Rubin, 1994, p. 211). For example, listeners may evaluate information and monitor their answers by questioning the answer: “Does this answer make sense according to the context?”
2. Cognitive strategies involve solving learning problems by considering how to store and retrieve information from the listening passages (Rubin, 1994). For example, listeners focus on word group or background knowledge while they listen.
 3. Bottom-up processing is when listeners use their knowledge of words, syntax and grammar to analyze or comprehend the information (Rubin, 1994). For example, listeners will focus on the meaning of individual vocabulary words or syllables, instead of the content of the listening passages.
 4. Top-down processing is when listeners use their knowledge of the world, real situations and roles of human interaction to interpret or predict the information (Rubin, 1994). For example, listeners may emphasize the gist of the whole listening passage instead of the meaning of individual words.
 5. Idea units are defined as a complete idea implied by intonation, a complete idea implied by pausing and a complete idea represented by syntax (Chafe, 1982). A group of idea units usually corresponds to the same topic and somewhat coheres with a larger idea unit. Based on its importance to the main topic, each idea unit is given a

different number of points from one to three (see Table 3.1).

6. Local questions focus on single vocabulary words that have contextual support. For example, listeners may focus on individual words or syllables in the listening passage instead of the background information of the listening passage. When listeners answer local questions correctly, it suggests they use bottom-up processing.
7. Global questions focus on main ideas and background knowledge instead of individual words or syntax in the listening passage. For example, listeners may use their background knowledge of the target language and use this information to predict the listening passage or content. When listeners answer global question correctly, it suggest they are using top-down processing.
8. Low-proficiency level represents the score of those learners who take the Chinese Comprehensive Adaptive Level Test (Chinese listening proficiency level test). Some studies call this proficiency level of learners, *less-skilled* or *novice level listeners*. For purposes of this study, there are three levels within the low-proficiency level: novice-low, novice-mid and novice-high.
9. High-proficiency level represents the score of those learners who take the Chinese Comprehensive Adaptive Level Test. Some studies call this proficiency level of learners, *high-skilled / skilled listeners* or *advanced-level listeners*.

Delimitations

1. Dialogue passages were the only form of listening passages used in this study.
2. Only adults in the second semester of the first year of Mandarin Chinese (Chin 102), the first semester of the second year of Mandarin Chinese (Chin 201) and the second semester of the second year of Mandarin Chinese (Chin 202) at Brigham Young University participated in this study.
3. Participants were native English speakers.

Chapter Two: Literature Review

Because of the growing number of Mandarin Chinese learners in the United States and the challenge of listening comprehension in Mandarin Chinese, it is important to investigate the listening comprehension of native English learners learning Mandarin Chinese. Ironically, listening comprehension often plays a trivial role or is neglected in language learning and teaching, as mentioned in Chapter One. However, current research has revealed that listening comprehension is a complex skill, and as the awareness of listening comprehension has gradually increased, listening comprehension has become a valuable skill in language acquisition. Because of this awareness, research has discovered many problems associated with listening. Even though difficulties arise when looking for similar studies that are directly relevant, some indirect studies in other languages and proficiency levels can still help to draw a sketch of listening strategies in general. The following section discusses several studies on listening strategies (meta-cognitive and cognitive strategies), on the two main cognitive processes (bottom-up and top-down processing), and, finally, on the relationship between listening comprehension and the Mandarin Chinese tonal system.

The Problems of Listening

Goh (2000) pointed out some of the listening comprehension problems of adult English as a Second Language (ESL) listeners. The study was based on Anderson's (1982) model in terms of perceptual processing, parsing and utilization. Perceptual processing is "encoding of the acoustic or written message" (p. 57). Parsing is when "words are transformed into a mental representation of the combined meaning of these words" (p. 57). Utilization is a "mental presentation related to existing knowledge and stored in long-term memory as propositions or schemata" (p. 57). In Goh's (2000) study, forty ESL students wrote about the experiences they had while listening to English passages, described how they tried to understand what they heard, and recalled the difficulties they encountered while listening. The procedures were as follows: the students participated in a semi-structured interview; they wrote in their diaries; and they participated in small group interviews. Goh concluded that, in general, listeners 1) quickly forget what they heard; 2) are unable to process mental representations from listening passages they hear; and 3) do not understand subsequent parts of listening passages because of earlier problems. More specifically, both skilled and less-skilled listeners are faced with two main issues: 1) not recognizing words they have previously learned and 2) quickly forgetting what they have heard. The majority of skilled listeners understand words but

not the meaning of the passage; whereas, the majority of less-skilled listeners focus on processing the meaning of the listening passage and neglect to follow the rest of the passage.

The awareness of listening problems will help educators and teachers understand the need for the development of listening strategies. The purpose of listening strategies is to enhance listeners' proficiency and to encourage listeners to apply these strategies in learning a second language. Different classifications of listening strategies are used in learning a second language, and many researchers have discussed these classifications.

Taxonomy of Listening Strategies

Studies have pointed out that learning approaches, learning aptitudes and learning strategies might be closely related to language proficiency (Leaver; 1986; Parry, 1984). Specifically, research on learning strategies shows that successful listeners use learning strategies frequently to become more self-managed learners and to improve their overall language performance (Nyikos, 1989). Oxford (1990) found two categories of learning strategies that are equally important in language acquisition: direct strategies and indirect strategies. Direct strategies are those behaviors directly relevant to language usage, including memorizing, and cognitive and comprehensive strategies. Indirect strategies are involved in language learning but not involved with language usage. Indirect strategies

include affective, meta-cognitive and social strategies. Other researchers, through observations of instructional techniques directed at helping listeners process linguistic input effectively, have pinpointed meta-cognitive strategies and cognitive strategies as the two main types of language learning strategies (Bacon, 1992; O'Malley & Chamot, 1989). Meta-cognitive strategies and cognitive strategies can be applied to listening comprehension. Vandergrift (2003) has claimed that orchestrated strategies imply a metaphor between meta-cognitive strategies and cognitive strategies, and meta-cognitive strategies direct cognitive strategies to interact with the parts of the listening passages. A summary of these strategies is useful for further clarification. Table 2.1 from Bacon's (1992) study delineates these strategies.

Table 2.1

A Summary of Listening Comprehension Strategies

METACOGNITIVE STRATEGIES	COGNITIVE STRATEGIES
Prior to listening: <ol style="list-style-type: none"> 1. Set self up for the task; know what helps, make sure conditions are right. 2. Focus attention: concentrate; clear mind. 3. Apply an advance organizer. "You told me it was a product, so ..." 4. Go in with a plan: "I listen for words I know, key words, cognates..." 	Bottom-up Processing: <ol style="list-style-type: none"> 1. Details- picture; linear processing. 2. Concentrate on text-based aspects. 3. Hear a word and repeat it. "I will hear a word...and I repeat it over and over." 4. Relate to known words: "I try to think of any vocabulary I've learned." 5. Listen for structure: "I listened for verbs, and then tried to fit them with

<p>5. Vow to think/listen in Spanish “I learned a long time ago to make myself think only in Spanish.”</p> <p>While listening:</p> <ol style="list-style-type: none"> 1. Self-management: Get used to speed; keep up with speed. “Then I said to myself, Well, I’ve got to listen to this. Try to keep up.” 2. Self-Evaluation: Assess knowledge of topic. “What do I know about electricity?” 3. Monitor: “Am I getting this? No, that’s too small to be regular house.” 4. Express interest, motivation. “This is interesting.” 5. Express lack of interest, loss of focus. “So, once I figure it out, I turned out.” 6. Aware of loss of attention. Refocus. “Well, I said I’ve got to concentrate.” <p>Post-listening:</p> <ol style="list-style-type: none"> 1. Know what helped understanding. “Once I heard ‘adapt’ I was o.k.” 2. Evaluate comprehension. “This one was easier. I made a story out of it.” 	<p>nouns.”</p> <ol style="list-style-type: none"> 6. Use intonation, pausing to segment words and phrases. “I listened for an entire phrase until there was a pause, then tries to understand that before it went on to the next phrase.” 7. Piece things together from the details. “Numbers, voltages, travel. He must be talking about a device to allow you to use your hairdryer, radio...” 8. Listen to each word one at a time. “What for the first word I know, then another one. See if I can put them together.” 9. Listen to sounds, rather than meaning. “I kept hearing the ‘r’ word, remarkable? The accent is throwing me.” <p>Top-down Processing:</p> <ol style="list-style-type: none"> 1. Picture-details, global processing. 2. Listen for topic, then details. “I started thinking about what could be electric.” 3. Have expectations; hypothesize I listened for things that would help me decide for sure if it was a motor home.” 4. Use schemata: “I just tried to figure out what the product was.” 5. Infer; guess from context, intonation” It sounds like a commercial with the music.” 6. Bypass English: “I’ve got a picture of it in my mind, as if I were really in it.”
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This table shows meta-cognitive strategies occur 1) prior to listening, 2) while listening

and 3) post listening; cognitive strategies are 1) bottom-up processing and 2) top-down processing. Note: from “Authentic listening in Spanish: How learners adjust their strategies Advances to the difficulty of the input.” By Bacon, 1992, *Hispania*, 75, p. 403

Meta-cognitive Strategies and Pedagogy

Meta-cognitive strategies involve the use of listening comprehension activities and utilize individual perceptions to help listeners increase their levels of listening comprehension. More specifically, pedagogical meta-cognitive strategies occur pre-listening, during listening and post-listening, and they increase listeners' levels of listening comprehension and better develop an awareness of listening (Bacon, 1992; Robin, 1994; Goh, 1997). The classification of pedagogical meta-cognitive strategies is further illustrated by three main comprehension abilities: planning, monitoring and evaluating (Robin, 1994). Planning means being aware of what needs to be accomplished in a listening task and developing appropriate plans to overcome listening difficulties. Monitoring means controlling and verifying one's performance during the course of a listening task. Evaluation means comparing one's listening comprehension to internal understanding of what is complete and accurate. Meta-cognitive strategies encourage listeners to acquire these abilities, and many studies show different aspects of meta-cognitive strategies in language pedagogy.

Research in Meta-cognitive Strategies. Language acquisition research has

revealed meta-cognitive strategies, and systematic training by using these strategies has developed listeners' awareness of listening processes. This awareness helps listeners engage in predicting, monitoring, problem-solving and evaluating, consequently enhancing listening comprehension in real life situations (Goh, 2002; Vandergrift, 2003).

Goh (2000) has also stated that by increasing their knowledge of meta-cognitive strategies, listeners become more active in overcoming listening difficulties instead of simply accepting their problems. Other studies suggest that using short and authentic topics related to listeners' interests can spark overall improvement in listeners' listening capability, and the sequence of listening tasks (such as moving from individual vocabulary words to background knowledge) can guide listeners through the mental processes of meta-cognitive strategies to successful listening comprehension (Field, 1998; Goh, 2002; Vandergrift, 2002, 2003). For example, by using strategy-based training listeners can study self-regulation in listening, understand rapid, authentic texts and respond to test in an appropriate manner. Meta-cognitive approaches, such as using collaboration (teamwork) and scaffolding (temporary support) with students in the classroom, encourages students to be actively involved in listening tasks and eventually become automatic learners. These studies indicate that meta-cognitive strategies are indeed valuable in language acquisition.

Other studies further denote the importance of meta-cognitive strategies in second language (L2) acquisition and point out the difficulties listeners have with meta-cognitive strategies. Vandergrift (2002) concluded that using meta-cognitive strategies, such as prediction and evaluation, can increase success in L2 listening tasks. He also indicated that meta-cognitive awareness of cognitive processes is involved in helping students develop a solid foundation for future listening tasks (Vandergrift, 2003). In another study Vandergrift (1996) found that when listeners use strategies with different types of listening tasks, the total number of strategies as well as the number of distinct meta-cognitive strategies increased by course level. In his later (2003) study, Vandergrift further suggested that although more-skilled listeners and less-skilled listeners tended to use the same cognitive strategies, the more-skilled listeners used more meta-cognitive strategies over time than the less-skilled listeners. He has indicated that less-skilled listeners avoided using meta-cognitive strategies because they had a more difficult time multi-tasking listening information than more-skilled listeners did.

Additional studies have concluded that low-proficiency listeners have less capacity to process meta-cognitive strategies while they are still struggling with cognitive strategies. Goh's (2000) study concluded that high-proficiency level listeners are able to facilitate meta-cognitive strategies and switch their attention back to the text, and then

they can keep listening. In contrast, low-proficiency level listeners use meta-cognitive strategies. Because of their simple vocabulary, they focus on difficult words. Vandergrift has (2003) concluded that less-skilled (low-proficiency) level listeners do not use meta-cognitive strategies. Therefore, even though meta-cognitive strategies play an important role in listening strategies, in this particular study, the researcher only studied cognitive strategies, and cognitive strategies will be the essential emphasis in the rest of the literature review.

Cognitive Strategies and Listening Processes

Numerous researchers have discussed different ways in which listeners can improve their comprehension competency by using cognitive strategies; however, until Bacon's (1992) study, researchers had not explored the definition of listening nor had they adequately researched several aspects of the listening process (Dunkel, 1991). Bacon explicitly points out that there are two significant processes of cognitive strategies: bottom-up processing and top-down processing. In reference to these strategies, Goh (1997) concludes that "we need to involve students in thinking, not just about the content of listening, but more importantly about the process of listening" (p. 367).

Increasing the awareness of cognitive strategies and their difficulties is essential because the relationship between bottom-up processing and top-down processing is

complex. Top-down processing is topic based; listeners recognize the topic of a conversation or make predictions about the listening passages. Bottom-up processing is text based; listeners focus on the meaning of vocabulary or the syntax cues of the text. The conflict is that “listeners use their knowledge of the world, situation, and roles of human interaction to focus on meaning (top-down processing) and then use their knowledge of words, syntax, and grammar to work on form (bottom-up processing) or vice versa” (Rubin, 1994, p. 210).

Bottom-up Processing and Lexicon. Lexical segmentation and word recognition skills are significantly related to bottom-up processing (Vandergrift, 2004). Bottom-up processing combines groups of features: phonemes into syllables, syllables into words, words into clauses, and clauses into sentences (Field, 1999). This makes bottom-up processing a step-by-step assembly process that deals with analyzing, identifying words and assembling sentences step-by-step. Word identification is the most significant part in bottom-up processing. Automatic bottom-up processing helps listeners recognize the differences in the listening passages and most of the words (Lynch, 1998). Prosodic features, such as interpreting chunks of connected information, help listeners recognize words more effectively (Lynch, 1998). Using syllable training can also help listeners be more successful in recognizing individual words out of clauses and phrases (Field, 2003).

Additionally, listeners use linguistic knowledge to emphasize grammatical or syntactic structures; this helps students interpret the meaning of individual words and then synthesize chunks of words. Thus, lexical segmentation is an important aspect of bottom-up processing.

Research in Bottom-up Processing. Some researchers who have studied the relationship between bottom-up processing and listening comprehension have suggested that bottom-up processing is more important than top-down processing in listening performance. Hansen and Jensen (1994) using two different kind of academic lectures, a history and a chemistry lecture, examined how listeners of different ability levels would be able to answer global and local questions. Their study concludes that low-proficiency level students relied heavily on bottom-up processing skills, because they did not have the ability to process and utilize implicit information. Another study by Shohamy and Inbar (1994) investigated the effects of texts and question types on a listening comprehension test completed by 150 EFL participants in their last year of secondary school. The study looked at three text types: broadcast news, lectures and consultative dialogues. Questions on the texts were classified as local questions and global questions. In the study, local questions indicated bottom-up processing, and global questions indicated top-down processing. In a global question, participants were required to

understand context as a whole and draw conclusions, while in a local question, participants needed to pick out specific details. The results of the study indicate that participants had better scores when tested on local questions rather than global questions. Osada (2001) also analyzed local and global questions and idea unit analysis. He analyzed 91 less-proficient EFL listeners from Tokyo and studied whether they tended to rely on bottom-up processing or top-down processing. The results of Osada's study showed that EFL low-proficiency level Japanese learners tended to rely on bottom-up processing, because they may have had a lower tolerance of ambiguity by measuring recalled idea units and answers local and global questions.

Other studies show that top-down processing may actually hinder listening comprehension. Vandergrift's (2003) study examined by quantitative and qualitative analysis how more-skilled and less-skilled listeners utilized a variety of the strategies and how they distinguished the differences between strategies. The study concludes that less-skilled listeners used direct (word for word) translation for a chunk of text, either at the beginning or the end of a listening segment, paying little attention to connecting the ideas from one segment to another. Thus, less-skilled listeners mainly engaged in bottom-up processing while they were listening and rarely applied their top-down processing actively. Vandergrift further indicated that employing top-down processing

may have actually prevented less-skilled listeners from developing conceptual frameworks and contractual meanings efficiently.

Hulstijn (2001) also concludes that top-down processing does not provide adequate linguistic input for L2 listeners. He suggests that bottom-up processing must be developed so that listeners use the components of the acoustic signals, such as stress and intonation, to create meaningful units. Familiar topics and easily recognized words are related significantly to bottom-up processing and increase the frequency of listeners' use of bottom-up processing. When a topic was unfamiliar, many L2 listeners used bottom-up processing ineffectively and inappropriately. For example, when listeners pay more attention to vocabulary recognition, they are not able to comprehend the remaining information. Listeners' concern with unknown sounds and words may also become a barrier in bottom-up processing; when listeners encounter new words or unfamiliar sounds, they may pause and focus on understanding that word, while ignoring the greater context. This is called bottom-up processing deficiency and prevents L2 listeners from being able to recognize words automatically (Tyler, 2001). The studies discussed above point out the importance of bottom-up processing in listening comprehension especially for less-skilled listeners. However, Goh's (2000) study reveals that giving listeners' relevant prior knowledge can promote the use of top-down processing, which help

listeners develop a better understanding of listening passages.

Top-down Processing and Background Knowledge. While listeners use bottom-up processing to be successful in their listening comprehension, they use top-down processing to make conclusions based on broad contextualized clues (Richards, 1983). Because listeners use top-down processing, it is crucial to provide listeners with abundant contextual cues, such as, familiar topics, predictable content or cultural background, to help with contextualization and bringing to life the listening situation as well as developing listening comprehension of the language. Top-down processing consists of specific knowledge of content concerning real-life situations, procedures and participants. Using real-life tasks and giving listeners an idea of the type of information to expect and what to do with it in advance of the actual listening may improve their listening comprehension. For example, low-proficiency level listeners can place locations on a map or exchange name and address information with each other and higher-proficiency level listeners can follow directions for assembling something or work in pairs to create a story. Additionally, by using old information or some associations made between interrelated segments of a new text, listeners' listening comprehension can improve. For example, a language teacher may ask listeners to read questions about the text first. By doing this, listeners may build up their own expectations about the coming

information; and by trying to find answers to these questions, their prior knowledge on the topic can be activated. They can even have a framework of the listening passages if the questions are organized. Listeners are thus able to predict what will happen to anticipate conclusions or to analyze the portions which they do not understand. In addition, familiar topics help listeners eliminate ambiguities and confusions while they are listening to a text. Thus, background knowledge and familiar topics are dominant features of top-down processing.

Research in Top-down Processing. Background knowledge is a critical component of the listening process. In Schmidt-Rinehart's (1994) study, familiar topics affected recall scores when participants used their background knowledge in a variety of ways. The participants in the study were required to recall the situations in two listening passages, one containing familiar information and the other unfamiliar. The findings of this study show that "less-proficient students relied more on contextual cues" (p. 181). All participants, regardless of their proficiency levels, scored higher on the familiar passage. Schmidt-Rinehart's study further suggests the importance of recognizing listeners' background knowledge and of listeners' making connections to new information in order to facilitate their comprehension capabilities.

Tsui and Fullilove (1998) carried out the most extensive investigation on

top-down processing. They observed the kind of processing skills that skilled and less-skilled English as a Foreign Language (EFL) listeners used, discriminating the listeners' performance on a large-scale examination (The Hong Kong Certificate of Education Examination) over seven years. These listening texts were pre-written texts and mostly monologues which conveyed new information to the listeners without visual input. They conclude that while listeners initially had the advantage with contextualized knowledge (i.e., background knowledge), they needed top-down schematic knowledge to support decoding information. The researchers suggested that low-proficiency listeners relied heavily on top-down processing in order to compensate for the problem of perception.

Another study suggested that listeners should focus on meaning first when they are having a difficult time (Wolff, 1987). Wolff instructed 12 to 18 year old German learners of English to listen individually to one specific text in English. The texts were illustrated or non-illustrated versions of the control text, and each version had a different linguistic difficulty level. Listeners recalled the texts in their native language and used the cognitive processes (top-down processing and bottom-up processing) to recall the text. The study points out that there is a correlation between the degree of difficulty of texts and the cognitive processes used by listeners. For instance, listeners were able to recall a

greater number of inferences and non-related prepositions in easier texts. The study concludes that listeners had a tendency to use top-down processing in more difficult tasks instead of bottom-up processing because bottom-up processing was constrained by language deficiencies (i.e., limited vocabulary). In addition, Conrad (1989) showed that as listeners rely more on syntax than on contextual semantic cues, they decrease in language proficiency. In short, the studies above indicate the importance of encouraging top-down processing by which one's background knowledge facilitates listening comprehension.

Bottom-up Processing and Top-down Processing. Some studies have stated that the use of bottom-up processing and top-down processing extend simultaneously throughout all listening skill levels. These strategies alone do not help listeners overall improve and understand texts; listeners increase their listening competency using bottom-up processing for easier texts and top-down processing for difficult texts (Field, 2001; Wolff, 1987). Further, Vandergrift (2003) found that more-skilled listeners tended to approach both bottom-up processing and top-down processing interactively, and less-skilled listeners were incompetent in keeping up with the coming input, were unable to recognize relevant information, and rapidly forgot previously comprehended knowledge. Because of less-skilled listeners' lack of vocabulary competency, they

interact with the listening passages superficially and have a difficult time focusing on new potential information and maintaining old comprehended input. Other studies found that listeners cannot switch from bottom-up processing to a top-down processing when they are confused by syntax or have limited vocabulary (Stanvich, 1980; Lund, 1991). Listeners pay too much attention to translating or recalling either their known or unknown vocabulary, so that they have no room to process more new information or the meaning behind the listening passages. VanPatten's study (1989) found that listeners had trouble paying attention to both content and form and that paying attention to form interfered with listeners' comprehension of content. Another of VanPatten's (1990) studies indicated that low-proficiency listeners struggle when they have to deal with processing input in both grammar morpheme and meaning; many low-proficiency listeners cannot accomplish these two tasks at the same time. A recent Vandergrift study (2003) indicates that "less-skilled listeners tended to segment what they heard on a word-by-word basis, using almost exclusively a bottom-up approach" (p. 467).

Listening Comprehension and the Mandarin Chinese Tonal System

Sun (1998) said: "One of the world's major spoken languages which American English-speaking adults have considerable difficulty learning is standard Mandarin" (p. 1). In addition, Jordan and Walton (1987) stated that languages that are linguistically and

culturally unrelated to Indo-European languages (i.e., Chinese, Japanese, Korean and Arabic) are called truly foreign languages. For example, the social understanding and linguistic system are more difficult to translate between English speakers and Chinese speakers than between English speakers and Spanish speakers. Anderson (1982) pointed out that “those linguistic features that took the longest for an individual to acquire and master will be the hardest to maintain” (p. 113). CFL listeners not only experience confusion and frustration when trying to understand Chinese syntax, pronunciation, morphemes, phonemes, semantic and even polysyllabic changes, but also the complexity of the tonal system, which may be one of the most frustrating things for CFL listeners. Particularly for most CFL English learners, the Mandarin Chinese tonal system may be the most difficult part of spoken Chinese to acquire because it takes the longest time to learn.

The role of the Mandarin Chinese tonal system is associated with Chinese listening comprehension; and because the tonal system does not exist in English, it may be one of the major influences on the results of this study. Therefore, the following section introduces the tonal system of Mandarin Chinese in order to help readers better understand the complexity of Mandarin Chinese.

Shen (1989) indicates that “the phonological segments (i.e., consonants and

vowels) of Mandarin do not present any particular difficulty for American learners of Mandarin L2; rather, its tones are difficult for them to acquire” (p. 27). Due to the complexity of the tonal system, several studies pointed out that because of the intonation system and different pitch range, American English speakers have difficulty producing tones (Chen 1974; White, 1981; Miracle, 1989; Shen, 1989). Furthermore, Elliot (1991) has pointed out that the perception and production of tones are interrelated. Further, several researchers pointed out that because of the intonation system and different pitch ranges, American English speakers have difficulty producing tones (Chen 1974; White, 1981; Miracle, 1989). When CFL English learners listen to a conversation, if they misperceive the wrong tones, they may hear completely different words and comprehend different meanings. This is because there are five lexical tones in Mandarin Chinese in addition to consonants (b, c, d,...) and vowels (a, e, i,...); every syllable has one of five tones: high level, rising, dipping, falling and neutral. The five primary tones for each individual word can associate with other single Chinese words to create a variety of meanings. According to Sun’s (1998) study: “The pitch contours of the tones high-level (Tone 1), mid-rising (Tone 2), low-dipping (Tone 3), high-falling (Tone 4) are all phonemic” (p. 4). The fifth tone is neutral and occurs in unstressed syllables. /Ma/ is the most common example for indicating the changing of a syllable depending on its tones.

For example, 媽 (*ma*-high tone) means *mother*, 麻 (*ma*-rising tone) means *hemp fabric*, 馬 (*ma*-dipping tone) means *horse*, 罵 (*ma*-falling tone) means *to scold* and 嗎 (*ma*-neutral tone) is a question particle. They all sound very similar but have very different meanings, and a tone slip by a learner could call a mother, hemp fabric or a horse.

When different syllables follow the same syllable they can change into several different combinations, with different meanings. The same words also connect with other individual words: 麻油 (*ma*-rising tone + *you*-rising tone) means *sesame oil* and 麻疹 (*ma*-rising tone + *zhen*-dipping tone) means *measles*. Additionally, Chinese contains a “trick dilemma”: 請給我加油 (*qing*-dipping tone + *gei*-dipping tone + *wo*-dipping tone + *jia*-high tone + *you*-rising tone) can be a complete sentence and have exactly the same sound and tones yet have two entirely different meanings: 1) please cheer me up and 2) please get gas for me. It can be seen how this may cause problems for a CFL learner.

Tone Sandhi is as interesting phenomena in Mandarin Chinese. “Tone sandhi may be described as the change of tone when syllables are juxtaposed” (Li, Charles N, 1992, p. 8). In other words, a syllable will have one tone when it stands alone, but it will change to a different tone, keeping the same meaning when it is followed with another syllable. The most common confusion for CFL listeners is when the third-tone syllable is followed by

another third-tone syllable; the first third-tone will change to second tone. Shen (1989) claimed that “lexical tones in Mandarin Chinese can experience considerable perturbation before they are confused for other tones” (p. 52). For example, 趕 (gan-dipping tone) means *to excel* and 鬼 (gui-dipping tone) means *devil*, both are pronounced with the third-tone individually. When these two syllables are put together, 趕鬼 (gan-raising tone + gui-dipping tone) means *to excel devil*; the first word will need to change from the third-tone to the second-tone and the second will still be pronounced with the third-tone. Thus, these examples given above describe the complexity of the Mandarin Chinese tonal system, and it can be seen how CFL learners’ language progress would be hindered because of this complexity.

Summary

These studies show that researchers have become aware of listening comprehension and listening strategies, specifically, top-down or bottom-up processing, in language acquisition. However, no previous study has specifically investigated bottom-up and top-down processing in low-proficiency level Mandarin Chinese as Foreign Language (CFL) listeners. Goh (2000) acknowledges that “we do not yet know enough about how learners form mental representations from syntactic and semantic cues and how this process should break down” (p. 71). Moreover, a recent study by

Vandergrift (2003) states that for “L2 learners of different languages at different levels of language proficiency and on a variety of language tasks, a more fruitful methodology for tapping the more covert processes and strategies involved in listening needs to be found” (p. 465). Particularly, the purpose of this study is to identify which cognitive strategies (bottom-up processing and top-down processing) low-proficiency level CFL learners dominantly use when they listen to short Chinese listening dialogues. More specifically, this preliminary study investigates whether low-proficiency level CFL learners comprehend explicitly from details to the big picture (bottom-up processing) or from the big picture to details (top-down processing). The results of the study may help those involved with Chinese language acquisition discover or become aware of the need of understanding low-proficiency level CFL listeners’ cognitive strategy use. Previous studies mentioned in this chapter have indicated that low-proficiency level CFL learners tend to use their background of the target language or vocabulary inventory to complete the gap in order to understand the listening passages, when they have difficulties when listening. Thus, this study is essential for Chinese teachers to increase the awareness of effective and useful teaching strategies.

Hypotheses

The hypotheses of this study are based on those of Osada's (2001) study, and the results of his study show that low-proficient level Japanese EFL learners tend to use bottom-up processing. The differences between Osada's study and this study will be explained later. Therefore, the purpose of this research is to identify the relationship between low-proficiency level CFL listeners and the dominance of top-down processing or bottom-up processing.

Hypothesis 1: As the level of proficiency decreases, the number of idea units recalled will decrease.

Hypothesis 2: As the level of proficiency decreases, low-level idea units will be recalled more than high-level idea units.

Hypothesis 3: The percentage of correct answers to the local questions will be higher than the percentage of correct answers to the global questions.

Hypothesis 4: As the level of proficiency decreases, the difference in the percentage of correct answers between local and global questions will be greater.

Chapter Three: Methodology

The Research Questions

As mentioned, the present study is based on Osada's (2001) study, and the results of that study indicate that low-proficiency level Japanese EFL learners tend to use bottom-up processing. Therefore, the purpose of this research is to identify the dominant strategy (bottom-up processing or top-down processing) that low-proficiency level learners of Chinese use. Answers to this question will also be used to discuss possible implications regarding the tonal system that may affect the use of bottom-up or top-down processing for low-proficiency level CFL listeners.

Participants

The participants in this study ranged in age from eighteen to thirty and consisted of thirty-one volunteers from the following Chinese classes at Brigham Young University (BYU): 102, 201 and 202. These classes are four-credit classes and meet five days a week. Chinese 102 is the second semester of the first year of Mandarin Chinese; its prerequisite is Chinese 101 or its equivalent. The goal of the course is to develop students' basic Chinese communication skills in a communicative setting with cultural perspectives. Chinese 201 is the first semester of the second year of Mandarin Chinese; its prerequisite is Chinese 102 or its equivalent. The goal of the course is to review and

continue the first year of Mandarin Chinese. Chinese 202 is the second semester of the second year of Mandarin Chinese. The goal of the course is to continue where Chinese 201 ended and cultivate the four skills (listening, speaking, reading and writing). Chinese classes at these levels and above consist of students with formal university language learning experience or students who have learned the language abroad. Some students had not completed two or three formal semesters of Chinese instruction at school but had equivalent language proficiency, because of their experiences as full-time Chinese-speaking missionaries for The Church of Jesus Christ of Latter-day Saints. Because of the varied backgrounds of the participants, their time spent studying Chinese ranged from one to five years of study.

Proficiency Level Measurement

In order to investigate if the Chinese tonal system affects the process of using bottom-up processing and top-down processing for low-proficiency level listeners, only non-tonal system English speakers' data was collected to participate in this study. These participants generally had very limited aural exposure, experiences and practice in listening comprehension. Their average outside class listening practice was less than one hour per week. Before the experiment, all participants took the Chinese Computer Adaptive Listening Text (CCALT) and filled out a survey. In this study, low-proficiency

level participants were categorized into novice-low, novice-medium and novice-high based on the scores of the CCALT.

The CCALT was designed by Chuanren Ke & Zizi Zhang and published by the Ohio State University Foreign Language Publications. “CCALT presents 400 test items calibrated according to The American Council on the Teaching of Foreign Languages (ACTFL) Proficiency Guidelines (see Appendix C) from Novice to Superior.” The ACTFL Proficiency Guideline states:

The 1986 proficiency guidelines represent a hierarchy of global characterizations of integrated performance in speaking, listening, reading and writing. Each description is a representative, not an exhaustive, sample of a particular range of ability, and each level subsumes all previous levels, moving from simple to complex in “an all-before-and-more fashion.”

CCALT uses contextualized audio cues to present dialogs and monologs which are accompanied by multiple choice questions. When the level of the examinee is reached, the test stops and reports the level attained, preserving the testing data for the instructor. The CCALT is designed as a placement instrument and/or proficiency measure (Ke & Zhang, 2000).

While taking the CCALT, participants listened to the test item, and then answered the multiple choice questions on the computer screen. If participants answered correctly,

they were given a slightly harder test item. If participants answered incorrectly, they were given an easier test item. Consequently, the CCALT quickly identified a participant's listening proficiency. Participants were informed that no extra credit or any type of compensation for their participation in this study would be given. However, they were able to receive a copy of their CCALT score for their personal records. The CCALT was given in the Humanities Learning Resource Center (HLRC) PC lab # 1131 in the Joseph F. Smith Building (JFSB) on the campus of Brigham Young University. The results of the test had three levels: novice, intermediate and advanced, and each level was subdivided into three degrees: low, medium and high. For example, listeners could receive the result as novice-low, intermediate-medium or advanced-high. The CCALT took approximately 30–50 minutes depending on participants' listening level. Once the CCALT was completed, low-proficiency level listeners were selected to participate in another research measurement in this study.

Measurements were then taken to investigate the research questions. One investigation was the idea unit analysis by a free written recall method, and the other was the analysis by local and global question types. The local questions indicated bottom-up processing, and the global questions indicated top-down processing. All questions were written in English and participants answered these questions in English. The reason for

using English was to let participants thoroughly understand the questions and allow them to express their listening comprehension level accurately.

The present study will have two variables which differ from Osada's study: 1) the language variable: using English CFL learners investigates the learners' listening process, and 2) listening passages: using dialogue listening passages instead of narrative listening passages. The purpose of using dialogue listening passages instead of narrative listening passages is that this researcher believes that the dialogue listening passages are closer to authentic situations and conversations. For example, a listener is more likely to converse with a professor or classmate or listen to the radio or watch and listen to the TV than listen to a story.

Making Connections was the only material relevant to the second measurements of the test, which was written by Madeline K. Spring in 2002. The main characteristics of *Making Connections* fitted perfectly into the purposes of this study, which were 1) naturally paced and authentic Chinese conversation, 2) controlled grammar and syntactic structure and 3) short and easily comprehended dialogue. The introduction of *Making Connections* states:

The conversations in this text are presented in authentic and natural-paced language, and the lessons are constructed to support students' existing knowledge and develop mastery of new vocabulary, grammar patterns,

and socio-cultural formalities in ways that are compatible with genuine communication. (p. vii)

Four listening passages were chosen from *Making Connections*, and these four listening passages were spoken by two native Chinese speakers. The themes of these listening passages are typical Chinese conversations. The three reasons why the researcher selected these four listening passages are outlined below.

1. Time: Because listeners tend to use short-term memory when listening, each listening passage selected was less than one and a half minute's length.

2. Authenticity: All listening passages presented daily life scenarios and ordinary situations.

3. Proficiency level: Because participants were selected from Chinese beginning and intermediate classes, the four listening passages were a combination of novice and intermediate listening levels. Listening passages A and C were selected from the novice level, and listening passages B and D were selected from the intermediate level (see Appendix E).

The four listening passages are described below:

1. Passage A (CD # 1.16) was about seeing a doctor. It was 355 characters in length and was delivered at an approximate rate of 264 words per minute over 1 minute

and 27 seconds.

2. Passage B (CD # 2.4) was about arriving late. It was 313 characters in length and was delivered at an approximate rate of 300 words per minute over 1 minute and 7 seconds.
3. Passage C (CD # 1.1) was about greeting in Chinese. It was 303 characters in length and was delivered at a rate of 215 words per minute over 1 minute and 30 seconds.
4. Passage D (CD # 2.2) was about getting together. It was 328 characters in length and was delivered at an approximate at rate of 278 words per minute over 1 minute and 19 seconds.

Comprehension Measurements

In the study, two different measurements were taken to investigate the research questions from different perspectives. One experiment was the idea unit analysis which analyzed a participants' free-written recall of the listening passages and the other was the analysis by local and global question types. Osada's study (2001) states that bottom-up processing and top-down processing and local and global questions show the same nature of listening process. Answers to local questions indicated bottom-up processing, and answers to global questions indicated top-down processing.

Idea Unit Analysis

Participants were required to listen twice to passages A and B from *Making Connections* and then recall as much of the information as possible. According to Chafe (1982), idea units are defined by

1) Using intonation to imply a complete thought and idea. Idea units typically have a clause-final intonation pattern by a rising pitch or a falling pitch, which means in a rising pitch, sentences are indicated with a comma; in a falling pitch, sentences are indicated with a period. For example, 你回來啦! (You are back).

2) Using pausing to imply a completed idea. Idea units are separated by a short pause. Every pause is different in length. For example, 那肯定挺...(It must be pretty...)

3) Using syntax to represent a completed idea. Idea units begin with a conjunction or coordinating word and its verb go along with its noun phrase. A group of idea units usually corresponds to the same topic and somewhat coheres with a larger idea unit. For example, 然後在醫院躺了三,四天, (then I stayed in the hospital for three, four days)

The syntactic and semantic structure in passage A was composed of 59 idea units; passage B was composed of 61 idea units. After students listened to these passages the second time they were asked to recall in English everything they remembered on the answer sheet (see Appendix F). The recall protocols were scored using idea units. The

idea units were calculated into total points. Each idea unit had one to three points based on the degree of importance to the overall details of the passage, and these hierarchical points were given depending on what the participants recalled: minor details (one point), subtopics (two points) or main topics (three points). Three points were given to high-level details, two points were given to middle-level details and one point was given to low-level details (see Appendix E). A summary of descriptive idea units points are given in Table 3.1 below.

Table 3.1

A Summary of Descriptive Idea Unit Points

Three points:	The first time important information appears in the listening passages; more difficult vocabulary words.
Two Points:	Repeated information in listing passages; less difficult vocabulary words.
One point:	Simple and easy vocabulary words.

The points given to determine idea unit were given and decided by the researcher and coached by Matthew Christensen, who is an Associate Professor of Chinese and the Chinese Flagship Program Curriculum Director at Brigham Young University and has had more than ten years teaching and research experience. A summary of passage A and B individual idea unit points are given in Table 3.2 below.

Table 3.2

A Summary of Passage A and B Individual Idea Unit Points

	One point	Two points	Three points	Total points
Passage A	20	19	20	59
Passage B	20	18	21	61

Idea units 36 to 40 on Passage A show that Speaker A asks what the doctor said and the speaker gives responses. Based on the importance of each idea unit, idea units 36 and 37 are marked as one point, 38 and 40 are marked as two points and 39 is marked as three points. However, as participants did not give fully complete answers, points were deducted. For example, when a participant only answered one major idea correctly in idea unit 39, the idea unit would only be scored one point. When a participant answered two major ideas correctly in idea unit 39, the idea unit would be scored two points and so on. For example, idea unit 38 received three points because the sentence structure was the most complex and contained difficult vocabulary words. Idea unit 40 received two points because it contained less difficult vocabulary words. Idea unit 36 and 37 received one point because these vocabulary words were fairly easy and repetitive. An example of Passage A individual idea unit points is given in Table 3.3 below.

Table 3.3

An Example of Passage A Idea Unit Points

Idea units	Speakers	Content	Points
36	A:	醫生怎麼說? (what did the Doctor say)	1
37	B:	醫生說: (the Doctor said)	1
38		很嚴重, (very serious)	2
39		讓我住醫院要打針. <i>the Doctor</i> (wanted me to stay at the hospital and take shots)	3
40	A:	要你住院了. (wanting you to stay at hospital)	2

After the individual points had been added up, the participants' recall protocol levels were determined. When low-level idea units dominated the recall protocols, it indicated that bottom-up processing had overwhelmed top-down processing during comprehension. However, "recalling high-level idea units does not necessarily indicate the outcome of top-down processing, because it is inferences and elaborations (propositions inferred from the original text) that can be generally recognized as products of top-down processing" (Osada, 2001, p.78).

Analysis by Local and Global Questions

The local and global question analysis used eight open-ended questions composed of four local questions and four global questions. Before they started listening to Passage C and Passage D from *Making Connections*, the participants were given an answer sheet; and after the listening activity, the participants wrote the answers in English. Local

questions focused on details: 1) understanding single vocabulary words that have contextual support and 2) recognizing facts. Global questions emphasized synthesized information, drawing conclusions and focusing on cause and effect relationships as well as inferences. In short, when participants answered the local questions correctly, it was assumed that they used bottom-up processing, and when participants answered the global questions correctly, they used top-down processing.

Procedures

This study was conducted during regularly scheduled class periods; students voluntarily participated in this study. The researcher asked for volunteers from the following BYU Chinese language classes: 102, 201 and 202. First, the instructors asked for volunteers from each class and then the students were told briefly the purpose of the study and students who participated would receive a copy of their CCALT listening proficiency score. Students were also informed that they would be assigned four different listening passages and would complete all four passages during a regular class period. The CCALT was administered by computer for four days. All tests were administered in the Humanities Learning Resource Center (HLRC) testing center room #1131 in the Joseph F. Smith Building on the campus of Brigham Young University. Test times ranged from 8:00 A.M. to 9:00 P.M.

The HLRC testing center consists of 35 Macintosh and Windows computers, each separated by partitions. Students wishing to take a test were first required to sign up for a test time with the researcher. This signup sheet was then given to the testing center lab assistant who then checked off the subjects as they arrived to take the CCALT. Because of the limited number of computers available for this test, a maximum of five students were able to take the test during any one hour.

Before taking the CCALT, students were required to fill out a research consent form (see Appendix A) in order to participate in the study legally. Participants were also required to fill out a survey background questionnaire (see Appendix B). Although students needed to put the last four digits of their students' ID on the consent form and survey, each participant was assigned an ID number by the researcher, which serial number was detached in order to keep subject anonymity.

After the participants completed the consent form and survey, they were allowed to take the CCALT. After 30–50 minutes depending on individual students' listening proficiency level and personal situations, participants received a score sheet, which simply showed participants' recognized number, date and listening proficiency level.

All the participants in this study were required to complete the CCALT, which determined their proficiency level. The participants' anonymity was strictly maintained

throughout the whole process of the study. An identity number composed of the last four digits of the participants' student ID numbers was used for each of the measurements: 1) the CCALT, 2) idea unit analysis and 3) analysis by local and global questions. At the beginning of this study, a total number of 65 students signed consent forms and surveys. Because the study was conducted on the second day of class, and because of number of participants dropping, changing or retaking classes and technological difficulties causing the number of participants dropped to 53 (see Appendix D).

Although Osada's (2003) study used only low-proficiency level learners, this study used intermediate-level Chinese Foreign Language (CFL) learners. This study used intermediate-level CFL learners because of the complexity of the Chinese tonal system, as discussed in Chapter Two. In the beginning of the study, the researcher used low-proficiency level (novice level) CFL learners, but the researcher discovered that Chinese novice level learners had not built up the same level of vocabulary as English novice level learners. Low-proficiency level participants could not even understand the novice level listening passages used in the second half of the study (explained further below). The limitations were not the result of low-quality class instruction, teachers or textbooks; it was simply because of the distinct differences between the Chinese language and the English language. CFL learners normally need to spend four times as much time

and energy reaching the same level of listening comprehension and vocabulary in Chinese as native-English speakers do to reach the same level in other languages, such as Spanish. This called for a redefining of the novice level of CFL learners. In English, it is easier to acquire vocabulary because it is a matter of memorizing sounds, whereas in Chinese, acquiring vocabulary requires memorization of not only sounds and intonation level but also understanding the context surrounding the word. Thus, CFL learners at the intermediate level have the same language ability as Japanese ESL learners at the novice level. For the purpose of this research and consistency between studies, this study defines intermediate level CFL learners as novice level learners (low-proficiency learners). A summary of the results of CFL participants taking CCALT are given in Table 3.4 below.

Table 3.4

A Summary of CFL Participants' Results on CCALT

	Chin 102	Chin 201	Chin 202	Total # of Participants	Ave. Time for CCALT in min
Superior	1	0	0	1	15
Advanced-high	0	0	2	2	15.8
Advanced-Mid	0	0	0	0	0
Advanced	0	0	4	4	19.5
Intermediate-High	1	0	5	6	18.6

Intermediate-Mid	2	5	4	11	13.6
Intermediate-Low	11	5	2	18	13.2
Novice-High	2	0	1	3	11.6
Novice-Mid	1	2	1	4	10
Novice-Low	2	0	0	2	10
Low	1	1	0	2	10

The proficiency ratings of the participants, who participated in the CCALT, originally showed that 18 participants received a rating of novice-low, 11 participants received a rating of novice-mid and 6 participants received a rating of novice-high. However, three novice-low and one novice-mid participant did not complete the consent form and survey, and their scores were eliminated from the study. As explained above, this study used intermediate level students instead of novice level students; novice-high was really intermediate-high, novice-mid was real intermediate-mid and novice-low was real intermediate-low. The final results of the CCALT were 15 novice-low, 10 novice-mid and 6 novice-high (see Appendix D). A summary of the results of low-proficiency CFL participants are given in Table 3.5 below.

Table 3.5

Summary of Low-Proficiency Participants' Results on the CCALT

	Chin 102	Chin 201	Chin 202	Total # of Participants	Ave. Time for CCALT in Min.
Novice-High	1	0	5	6	18.6
Novice-Mid	2	5	4	10	13.6
Novice-Low	11	5	2	15	13.2

After the CCALT, participants were given a copy of their listening proficiency results, and the researcher retained a copy. All the results of the study CCALT, recall analysis, and local and global questions were retained by the researcher. A researcher-assigned number was the only means of identifying the participants, which did not relate to their identity (i.e., student ID number) and was only used for measurements. Only the researcher and the thesis committee members had access to these records. Upon completion of the study, all the data were retained by the researcher, who accessed it only for purposes of this study.

After the completion of the CCALT, participants were given four listening passages in one class period, addressing one of the concerns expressed about the previous study. Osada's study used different class periods over the course of a month to complete the study. The researcher believed that during this month, the participants' vocabulary knowledge and overall skills may have gradually increased as they were exposed to the Chinese language, which may have altered the results of the study. Therefore, the

researcher acknowledged that the participants' listening proficiency levels may change over time; thus, four short listening passages were used and administered in one class period in the same week as the participants took the CCALT.

A free-written recall protocol is the technique used to determine the number of idea units recalled. Participants were informed that they were to listen to two passages, try to understand the passages and then recall the passages in English. Since it was necessary for the participants to recall idea units, they were instructed to write as much of the detail as they could remember and reproduce as much of the wording as possible. Each passage was played twice and each listening activity took about ten minutes. After listening twice, the participants wrote whatever they could remember. In the local and global question tasks, the participants were given an answer sheet with eight open-ended questions per passage, composed of four local and four global questions. Again, each passage was played twice. After listening twice, the participants answered questions and wrote down their answers on the answer sheet in English.

Pilot Study

Before the actual study took place, a pilot study was essentially needed. All listeners in the pilot study completed a consent form and survey. Four BYU students participated in the pilot study. However, because the computer lab had technical

difficulties, the CCALT was not installed in the computer lab at that time. Consequently, the researcher had to use participants who had less than two years Chinese language experience in order to keep the pilot study as close as possible to the actual study. The researcher found two participants who had studied one year of Chinese, one participant who had studied one and a half years of Chinese, and one participant who had studied two years of Chinese. Participants were not acquaintances of the researcher. They were native English speakers, which also fitted one of the main concerns of this study. The pilot study was conducted in the conference Room # 3086 in the JFSB, and all the procedures were conducted the same as in actual study. In the pilot study, the four participants were instructed to fill out consent forms and surveys; they also listened to four listening passages from *Making Connections* (see Appendix E) and their answers were scored with idea units' analysis and the analysis of global and local questions. They were asked to recall as much as possible in English.

The purpose of the idea unit analysis and analysis of global and local questions was to determine which listening strategy (bottom-up processing or top-down processing) is dominantly used by low-proficiency level learners of Chinese. The results of these two measurements is further described and analyzed in the next chapter.

Chapter Four: Data Analysis

Empirical studies have concluded that bottom-up or top-down processing in English as a Second Language acquisition is important, and this study focused on finding out the dominant listening strategy (bottom-up processing or top-down processing) of low-proficiency level listeners of Chinese. In summary, this study was a quantitative data analysis of 31 low-proficiency level listeners of Chinese from Brigham Young University's (BYU) Chinese 102, 201 and 202 classes. The participants took the Chinese Computerized Adaptive Listening Comprehension Test (CCALT) and were divided into three groups according to their CCALT score: novice-low, novice-mid or novice-high. The participants then took four different listening passages and the Chinese Computer Adaptive Listening Tests (CCALT). Each participant listened to four listening passages played in one class period and answered on answer sheets in English questions about the listening passages. These four Mandarin Chinese listening passages played by same CD player were no longer than one minute and thirty seconds each and were all from *Making Connections*, which is published by the Cheng and Tsui Company. The questions tested idea unit recall and included local and global question types. The first two of the following four hypotheses were measured by idea unit analysis and last two were measured by local and global question types.

H1: As the level of proficiency decreases, the number of idea units recalled will decrease.

H2: As the level of proficiency decreases, low-level idea units will be recalled more than high-level idea units.

H3: The percentage of correct answers to the local questions will be higher than the percentage of correct answers to the global questions.

H4: As the level of proficiency decreases, the difference in the percentage of correct answers between local and global questions will be greater.

Questionnaire Results

In this study, a questionnaire with open-ended questions was used to gather participants' general information and background experiences with Mandarin Chinese.

The answers of 31 participants in this study are discussed below; some questions may not directly relate to this study but may be useful in future research (see Appendix B).

The participants had spent from one year to five years studying Chinese. Only one of the participants grew up in a Chinese-speaking environment, specifically Mandarin and some Cantonese Chinese. A few of them learned Chinese in a full-time Chinese-speaking environment. These participants first experienced Chinese at the Missionary Training Center for two to three months and then served full-time religious missions (18–24 months) in Chinese-speaking areas, such as Taiwan, Hong Kong,

Singapore, Australia, California and Toronto. They were required to use Chinese in their daily lives. The survey showed that one participant served a mission in Taiwan, two in Hong Kong and one in Singapore. Some participants learned Chinese at the International School in Hong Kong. Although the participants who learned Chinese in Hong Kong had a better opportunity to learn Chinese in authentic Chinese surroundings, Cantonese is the primary dialect in Hong Kong, and they lived in English speaking areas, which also limited their Chinese listening exposure. Some participants went to Chinese-speaking school while growing up. Four participants learned Chinese in international schools in Hong Kong. Twenty-three participants learned Chinese in United States schools, and most of the participants attended school in the United States. Several participants had begun learning Chinese while attending other colleges, such as Utah Valley State College and the University of Utah. Seventy-four percent of participants in this study had not had opportunities to learn or listen to Mandarin Chinese in authentic Chinese environments.

One participant lived in Chinese housing at BYU, which requires that residents only speak Chinese when at home; thus, this participant heard Chinese outside of the class at home. Other participants mentioned that they listened to Chinese friends, radio and even watched Chinese movies. A few participants mentioned that they listened to religious broadcasts in Chinese. On average, participants spent four hours per week

studying Chinese outside the classroom. In these four hours, they spent approximately one hour and thirty minutes on listening comprehension.

A brief discussion of the findings is presented in this chapter. The first section describes the idea unit analysis. The second section describes the local and global question analysis. In the next chapter, the data will be discussed in greater depth.

Idea Unit Data Analysis

Hypothesis 1: As the level of proficiency decreases, the number of idea units recalled will decrease.

Participants listened to listening passages A and B with 59 and 61 idea units, respectively. The value of each idea unit was numbered from one to three depending on the importance of the information to the listening passage. There were six novice-high, ten novice-mid and fifteen novice-low proficiency level CFL listeners. These groups were compared with each other. The number of idea units recalled by each participant was totaled and a test was done to determine whether their proficiency level had any effect on that total. This was done with an ANOVA analysis with proficiency as the only factor. ANOVA is appropriate here since there are three levels of proficiency and it was advantageous to test each group simultaneously. The F Value and $Pr > F$ tell if the difference is significant. The “standard” of whether a test is significant is if the p-value

(Pr > F) is less 0.05 than the difference is considered statistically significant. This is the output from the SAS program. A summary of this analysis is shown in Table 4.1 below.

The GLM Procedure

Table 4.1

A Summary of the One-way Repeated Measured ANOVAs

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	7897.92688	3948.86344	8.43	0.0014
Error	28	13116.26667	468.43810		
Corrected Total	30	21014.19355			

R-Square	Coeff Var	Root MSE	Total Mean
0.375838	77.74581	21.64343	27.83871

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Proficiency Level	2	7897.926882	3948.963441	8.43	0.0014

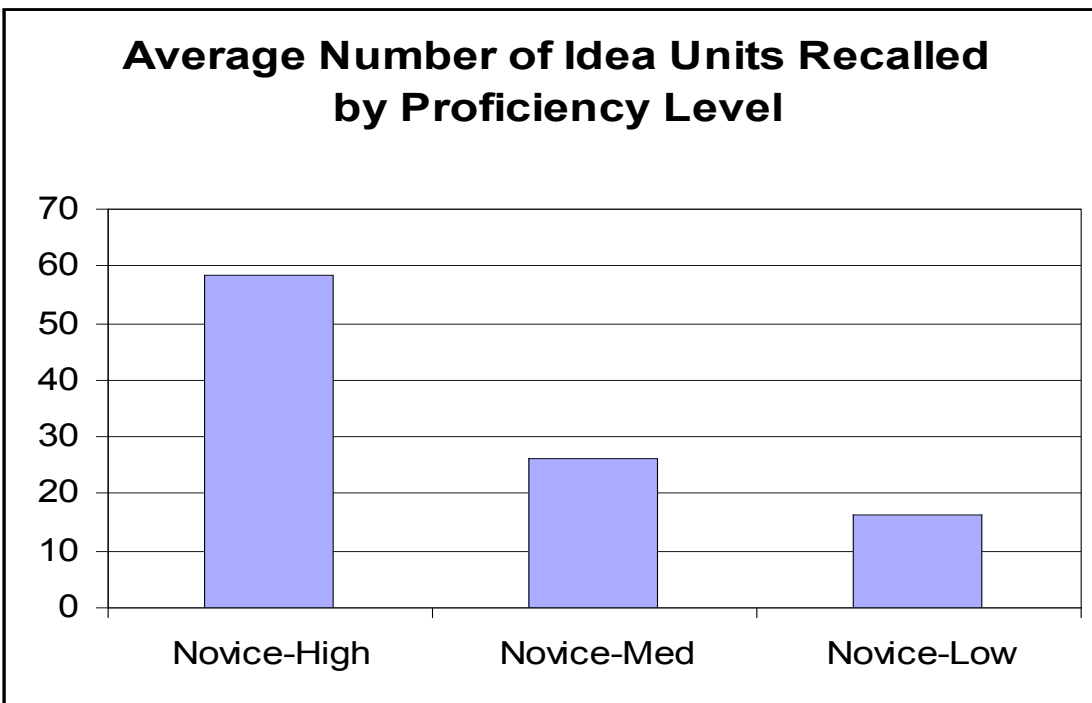
The results show that the proficiency level does affect the number of idea units recalled. This is indicated by the p-value, 0.0014, (labeled Pr > F) which is lower than the typical significance value of 0.05. Below is the average number of idea units recalled by each proficiency level. It can easily be seen that as the proficiency level decreases so does

the number of idea units recalled.

Figure 4.1 clearly depicts that the differences in the average number of idea units significantly recalled by proficiency level.

Figure 4.1

An Average Number of Idea Units Recalled by Proficiency Level



Hypothesis 2: As the level of proficiency decreases, low-level idea units will be recalled more than high-level idea units.

As stated earlier, the value of each idea unit ranged from one to three; one represented the least important information relevant to the listening passage and three represented the most important information relevant to the listening passage. The results

of this study were analyzed according to the hierarchical levels of idea units. First the number of novice-high, novice-mid and novice-low level ideas recalled by each participant was determined. A mixed model approach was used to determine this. This is appropriate for this study because there are repeated measurements on the participants and using a classical least squares model would not be able to account for this. The test for statistical significance is an F-test, similar to the F-test from the ANOVA. This time only the interaction term needed to be tested. The same rule applied for telling if the test was significant, which is that if the p-value (labeled Pr < F) is less than 0.05 it is statistically significant. Then using SAS, the interaction between the level of the idea and the participants' proficiency was examined to see if it related to the percentage of idea units recalled. A summary of the tests of fixed effect are given in Table 4.2 below.

Table 4.2

A Summary of the Tests of Fixed Effects Between the Level of the Idea and the Participants' Proficiency

Effect	Num DF	Den DF	F Value	Pr > F
Level	2	56	0.27	0.7643
Proficiency Level	2	28	22.57	<.0001
Proficiency Level * Level	4	56	0.41	0.8036

The results show that the test was not significant. Since the p-value, 0.8036, is so high, the test is not significant. This implies that there is not enough evidence to support that as

the proficiency decreases more low-level idea units will be recalled than high-level. The mean percentages set a pattern that seems to go against this conclusion. The issue is not that this pattern exists but that this pattern was not strong enough to give statistical significant. Table 4.3 shows the average percentages for each proficiency level and idea unit level.

Table 4.3

A Summary of the Average Percentages for Each Proficiency Level and Idea Unit Level

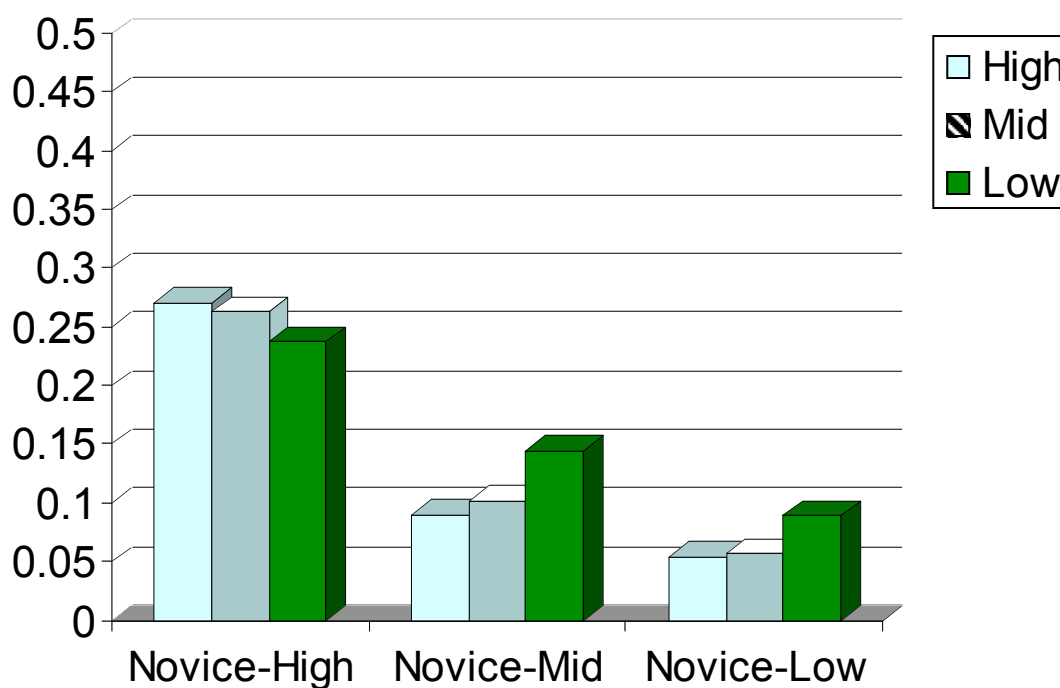
Proficiency Level	Idea Unit	Estimate	Standard Error
Novice-High	High	0.2703	0.04152
Novice-High	Medium	0.2632	0.04152
Novice-High	Low	0.2375	0.04152
Novice-Mid	High	0.09014	0.03216
Novice-Mid	Medium	0.1021	0.03216
Novice-Mid	Low	0.1447	0.03216
Novice-Low	High	0.05437	0.02626
Novice-Low	Medium	0.05696	0.02626
Novice-Low	Low	0.08880	0.02626

Table 4.3 shows the average percent of idea units recalled for each proficiency level and idea unit level. “Novice-High / High” refers to high proficiency and high idea units, “Novice-High / Low” refers to high proficiency and low idea units and so on. The

number for novice-high is 0.2703 for high-level idea units and 0.2375 for low-level idea units. The number for novice-medium is 0.05437 for high-level idea units and 0.08880 for low-level idea units. The number for novice-low is 0.09014 for high-level idea units and 0.1447 for low-level idea units. Figure 4.2 shows that within each proficiency level there is not much of a difference between idea unit levels in terms of the percent of idea units recalled. A summary of the differences of average percents of idea units recalled by proficiency level and idea unit levels is shown in Figure 4.2.

Figure 4.2

An Average Percent of Idea Units Recalled by Proficiency Level and Idea Unit Level



Analysis of Data for Local and Global Questions

Hypothesis 3: The percentage of correct answers to the local questions will be higher than the percentage of correct answers to the global questions.

This question is answered by simply looking at the data and finding the percentage of local and global questions answered by each participant. There were eight open-ended questions composed of four global and four local questions, and participants answered on answer sheets in English corresponding with listening passages C and D.

Global questions represented the use of top-down processing; local questions represented the use of bottom-up processing. The results below show the average percentage of global and local questions answered correctly by each participant. A summary of the percentages of local and global questions are given in Table 4.4.

Table 4.4

A Summary of the Percentages of Local and Global Questions

Effect	Question-type	Estimate	Standard Error	DF	t-value	Pr> /t/
Question Type	Global	0.7569	0.02967	28	25.51	<.0001
Question Type	Local	0.7722	0.02967	28	26.02	<.0001

The results show that participants correctly answered more local questions than global.

The test of whether this difference is significant is below. A mixed model approach was

used to solve this problem as for Hypothesis 2, explained above. This is appropriate for this study because there are repeated measurements of the participants and a classical least squares model would not have accounted for this. The test for statistical significance is an F-Test, similar to the F-test from ANOVA. This time only the interaction term needed to be tested. The same rule applies for telling if the test is significant, which is if the p-value (labeled Pr < F) is less than 0.05 it is statistically significant. Using SAS, the interaction between the level of the idea and the participants' proficiency was examined to relate it to the percentage of idea units recalled. A summary of the tests of fixed Effects is given in Table 4.5

A Summary of Tests of the Fixed Effects Percentage of Local and Global Questions

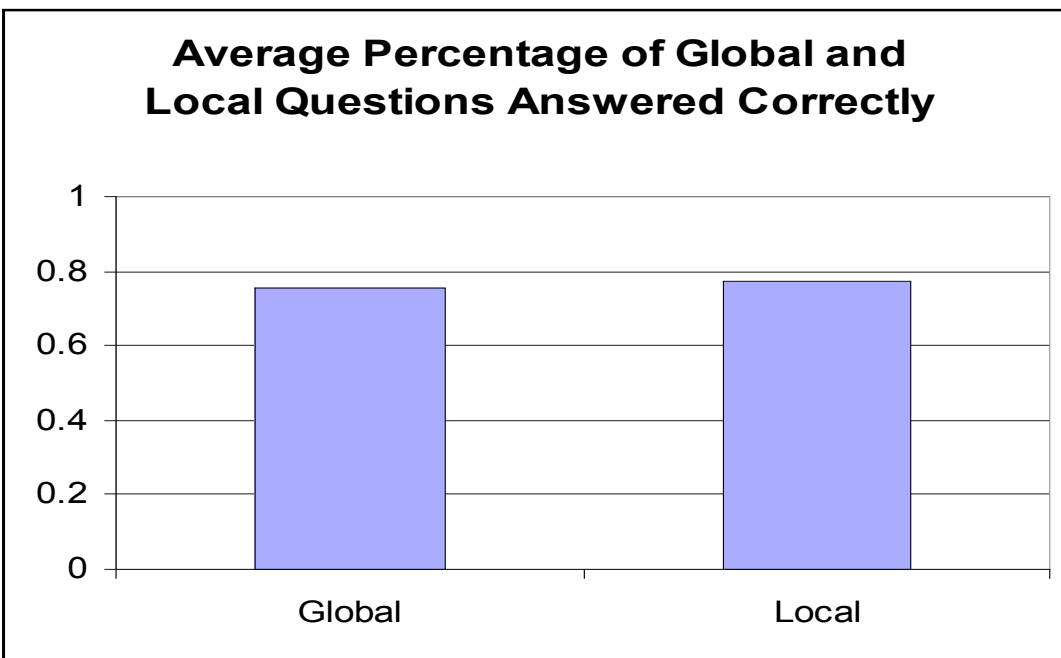
Effect	Num DF	Den DF	F Value	Pr > F
Proficiency Level	2	28	7.50	0.0025
Question Type	1	28	0.13	0.7185
Proficiency * Questions	2	28	0.92	0.4101

This shows that even though the pattern expected was present, the difference was not significant. This indicates that there is not enough evidence to support the hypothesis that the percentage of correct answers to the local questions will be higher than the percentage of correct answers to the global questions. However, the mean percentages, the average

percentage of global and local questions answered correctly by each participant, are not great enough to be statistically significant. Figure 4.3 shows the average percentages of global and local question answered correctly by each participant. The small difference confirms the test results above.

Figure 4.3

An Average Percentage of Global and Local Questions Answer Correctly



Hypothesis 4: As the level of proficiency decreases, the difference in the percentage of correct answers between local and global questions will be greater.

How the interaction between the proficiency level and the question type affected the percent of questions answered explains the answer to this hypothesis. As with

Hypotheses 2 and 3, a mixed model approach was used to solve this problem. This is suitable for this study because there are repeated measurements of the participants and using a classical least squares model would not have accounted for this. The test for statistical significance is an F-Test, similar to the F-test from ANOVA. This time only the interaction term was tested. Again, the test is significant if the p-value (labeled Pr < F) is less than 0.05. Then using SAS, the interaction between the participants' proficiency level and question type was examined to see if the interaction was related to the percentage of correct answers to local and global questions. The results below show that there is no significant evidence to state that the effect of the proficiency level changes depending on the question type. A summary of the tests of fixed effects are given in Table 4.6.

Table 4.6

A Summary of Tests of Fixed Effects the Participants' Proficiency and Question Type

Effect	Num DF	Den DF	F Value	Pr > F
Proficiency Level	2	28	7.50	0.0025
Question Type	1	28	0.13	0.7185
Proficiency * Questions	2	28	0.92	0.4101

Table 4.7

The Percentages for Each Proficiency Level and Question Type

Effect	Proficiency-L	Question Type	Estimate	Standard Error	DF
Proficiency* Qs.	Novice-H	Global	0.8125	0.06295	28
Proficiency* Qs.	Novice-H	Local	0.9167	0.06295	28
Proficiency*Qs.	Novice-M	Global	0.7750	0.04876	28
Proficiency*Qs.	Novice-M	Local	0.7500	0.04876	28
Proficiency*Qs.	Novice-L	Global	0.6833	0.03981	28
Proficiency*Qs.	Novice-L	Local	0.6500	0.03981	28

Table 4.7 shows the percentages for each proficiency level and question type.

“Proficiency * Qs” refers to Proficiency level and question type; “Novice-H”,

“Novice-L” and “Novice-M” refer to Novice-High, Novice-Low and Novice-Medium.

The number for novice-high is 0.8125 for global questions and 0.9167 for local questions.

The number for novice-medium is 0.6833 for global questions and 0.6500 for global

questions. The number for novice-low is 0.7750 for global questions and 0.7500 for

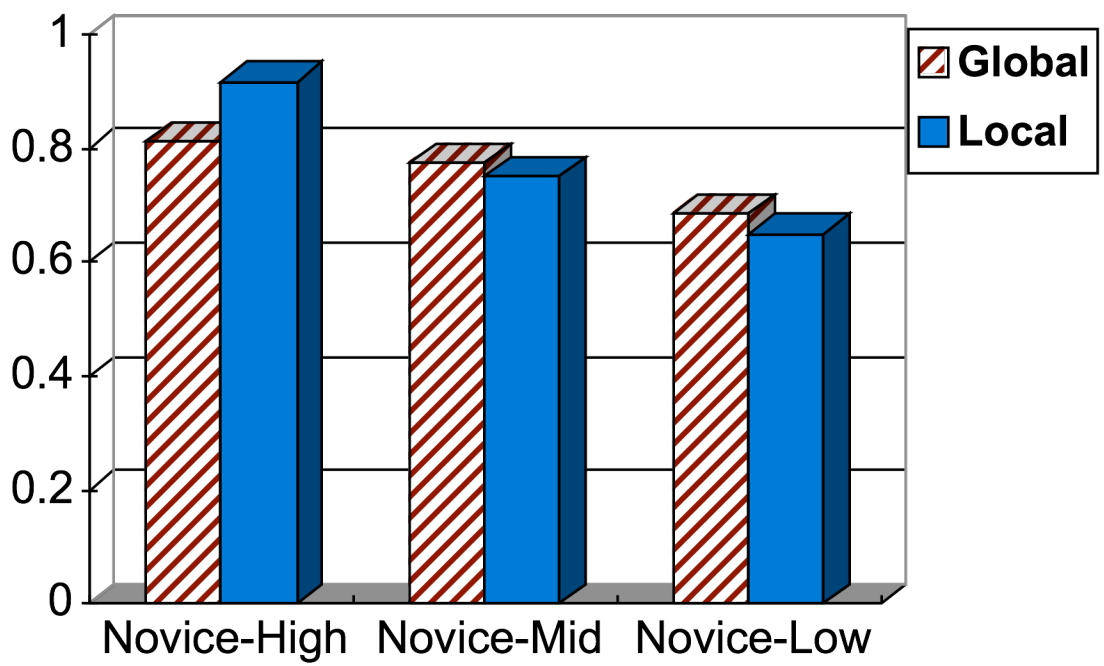
low-level idea units. Figure 4.4 to shows the average percent of questions answered by

proficiency and question type. Again, the results show very little difference between the

averages, confirming the statically insignificant results above.

Figure 4.4

An Average of Questions Answered by Proficiency Level and Question Type



It should be noted, also, that the level of proficiency alone is significant (see Table 4.9).

A summary of the percentages by proficiency levels is given in Table 4.8.

Table 4.8

A Summary of the Percentages by Proficiencies

Effect	Level	Estimate	Standard Error	DF	t-value	Pr> t
Proficiency L	Novice-H	0.8646	0.04451	28	19.42	<.0001
Proficiency L	Novice-M	0.7625	0.03448	28	22.12	<.0001
Proficiency L	Novice-L	0.6657	0.02815	28	23.68	<.0001

Summary

The data of this study show: First, it can easily be seen that as the proficiency level decreased the number of idea units recalled decreased; Second, as the level of proficiency decreased, the number of low-level and high-level idea units was not affected; Third, although more local questions were answered than global questions, the results show that the difference is not significant; and Finally, the interaction between the proficiency levels and the question types affect the percentage of questions answered. Even though the difference between the number of correct answers between local and global questions by level of proficiency alone is significant, there is no significance that as the proficiency level decreases, the percentage of correct answers between local and global questions will increase. This study shows that neither bottom-up processing nor top-down processing is dominantly used by low-proficiency level CFL listeners; the CFL listeners in this study used both processes.

Chapter Five: Conclusion

The purpose of this study was to identify which cognitive strategy (bottom-up processing or top-down processing) low-proficiency level CFL learners dominantly use when they listen to short Chinese dialogues. In this study, the researcher used students enrolled in Chinese 102, 201 and 202 classes Fall semester 2005 at Brigham Young University (BYU). These participants had a variety of Chinese-learning background and voluntarily participated in this study. A total of fifty-three students participated in the study.

In order to determine participants' listening proficiency level, the participants took the Chinese Computer Adaptive Listening Test (CCALT), and the results categorized all the participants from novice-low to superior; however, this study only investigated low-proficiency level participants. Thirty-one CFL participants were in the low-proficiency level range. These participants were then divided into three sublevels: novice-low, novice-mid and novice-high. Fifteen participants were in the novice-low, ten participants were in the novice-mid and six participants were in the novice-high category.

All participants listened to four listening passages from *Making Connections*, and the researcher used idea unit analysis and global and local question analysis to examine which cognitive strategy (bottom-up processing or top-down processing) was dominantly

used by these low-proficiency level CFL listeners. Participants listened to four short listening dialogues. Every listening passage was played twice, and participants recalled as much as they could remember about the passage, writing down their answers on the answer sheet. Idea unit analysis and local and global question analysis were scored on a prepared scoring sheet. Finally, all the scores were analyzed quantitatively and qualitatively, as explained in the previous chapter.

Summary of Results

Results show that low-proficiency level CFL participants in this study use both bottom-up processing and top-down processing while they listen to short audio passages. Idea unit analysis and global and local question type analysis show similar results. Because of the limited cognitive processing space, even overall, the number of idea units recalled decreases as the proficiency level decreases. Low-proficiency level listeners of Chinese still rely on both cognitive strategies (bottom-up and top-down processing), and they must focus on words as well as globalize the background knowledge in order to answer questions correctly. Because the results show that proficiency level does not matter, low-proficiency level CFL learners recalled close to the same number of high-level idea units as low-level. Global and local question type analysis shows there is no evidence that as the proficiency decreased the number of correct answers to local

questions exceeded those of global questions and the percentage of correct answers to the local questions is higher than global questions. Two listening measurements (idea unit analysis and local and global question analysis) were used in this study to account for the strategies used by low-proficiency level CFL learners participating.

In regards to hypothesis 1, as the level of proficiency decreases, the number of ideas units recalled also decreases. Some studies mentioned in Chapter Two indicate that lower-proficiency level CFL listeners tend to use more bottom-up processing. Because of their small vocabulary and background knowledge, listeners pay more attention to vocabulary words and may neglect the greater context. In regards to hypothesis 2, no significant difference existed as the proficiency level decreased, and low-level idea units were not recalled more than high-level idea units. Although it appears that lower-proficiency level CFL listeners do not recall more low-level idea units than higher-proficiency level CFL listeners, a closer look at the strategies reveals those lower-proficiency level CFL listeners used filler words with more frequency and in a different ways than higher-proficiency level CFL listeners. In regards to hypothesis 3, there was no significant difference in the number of correct local question answers to the number of correct global question answers. In addition, in regards to hypothesis 4, there was no significant difference as the percentage of correct answers between local and

global questions rose while the level of proficiency decreased. It appears that low-proficiency level CFL listeners use both bottom-up and top-down processing while they listen.

A statistical analysis shows that the results from three out of the four hypotheses indicated that low-proficiency level CFL listeners do not dominantly use bottom-up processing or top-down processing. Consequently, it is impossible to say conclusively that low-proficiency level CFL learners in this study used either bottom-up or top-down processing dominantly. This is, of course, assuming that the recall score is a reliable measure of how well the learner understood the text. Some studies mentioned in Chapter Two that examined low-proficiency level listeners show that listeners use both bottom-up and top-down processing simultaneously. They also stated that using both bottom-up and top-down processing at the same time is not more successful in helping low-proficiency level CFL listeners understand the texts. Results from this present study suggest that this may not be true.

The idea unit analysis recall scores indicated that while lower-proficiency level CFL listeners recalled scores very close to higher-proficiency level CFL listeners, use of both bottom-up and top-down processing helped low-proficiency level CFL listeners understand and answer questions better. This study implies that low-proficiency level

CFL listeners need to use both bottom-up and top-down processing to make up for the lack of vocabulary, which may agree with current research stating that strategies alone do not help listeners' overall improvement and understanding of text (Field, 2001; Wolff, 1987).

The following are some possible reasons why low-proficiency level listeners of Mandarin Chinese relied on not only bottom-up processing but also on top-down processing. First, the complexity of the Chinese tonal system may have increased the difficulty of cognitive processing in low-proficiency level listeners of Chinese. Thus, low-proficiency level listeners of Chinese could only recognize words. This means that the uniqueness of the Chinese tonal system may cause great anxiety to listeners and confuse aural input. Some studies indicated that low-proficiency level listeners relied on top-down processing; however, because Chinese is more difficult than other languages, there may be more proficiency level differences. Low-proficiency level listeners of Chinese in this study also had limited aural environments to explore, practice and listen to Chinese outside the classroom. The participants' listening levels in the earlier studies were possibly higher than the low-proficiency level listeners in the present study.

Implications

The findings in this study show that low-proficiency level CFL learners do not use bottom-up or top-down processing more dominantly while listening. This may imply that low-proficiency level CFL learners are possibly weak at using bottom-up level processing because of the difficulty of the tonal system or other factors, and they still need to rely on contextual information and topic guessing.

This study points out that low-proficiency level CFL learners need to be taught not only bottom-up processing but also top-down processing. The results of this study may suggest that low-proficiency level CFL learners might struggle with the complexity of the Chinese tonal and syntax system while they listen, and then they may use their background of the target language in order to understand the listening passages.

Low-proficiency level CFL learners may use top-down processing to further understanding of a text, when they have difficulties with using bottom-up processing.

Because of the distinct differences between the Chinese tonal system and the English stress system, some Chinese teachers may encourage CFL learners to focus on the words while they listen rather than practice listening to the basic idea of a passage. Thus, this study may help to increase the awareness of Chinese teachers to balance the teaching of cognitive strategies to low-proficiency level CFL listeners. This study may encourage the

further awareness of meta-cognitive strategies for CFL learners to improve their listening comprehension. For example, Chinese teachers can teach CFL learners prior listening strategies, while using listening and post listening strategies to strengthen learners' listening skills. It is important that CFL learners combine both meta-cognitive strategies and cognitive strategies to increase CFL learners' listening comprehension.

Limitations

Participant Proficiency

One of the limitations of this study is that the data and results in this particular study only reflect the small group of participants, small group low-proficiency level CFL participants from BYU, randomly selected to complete all tasks. However, these participants can not represent all low-proficiency level CFL listeners. The researcher acknowledges that these participants may not accurately represent low-proficiency level CFL listeners at other universities or institutions. For example, some of these participants had the unique opportunity of living for two years in an authentic Chinese environment where they used Chinese for two years.

Furthermore, the proficiency level of all participants in this study may be too narrow. All low-proficiency level CFL participants were divided into three different levels by their scores of CCALT, but it was discovered that the range of proficiency level

between novice-low, and novice-mid and novice-high may not have been large enough to see between group differences. The small range of proficiency levels may have affected the outcome of this study. The researcher suggests that future studies use a larger range of proficiency levels. For example, a future study could use advanced, intermediate and novice level CFL learners instead of novice-high, novice-mid and novice-low CFL listeners.

Chinese Computerized Adaptive Listening Test

An additional limitation to the study is the assessment of the listening proficiency level of the participants. Although the Chinese Computer Adaptive Listening Test (CCALT) is one of the standard general listening proficiency tests, there is concern about the validity and accuracy of this test. For example, the only superior level participants were in the Chinese 102 class (Beginning Mandarin), who had completed only one semester of Chinese. According to American Council on the Teaching of Foreign Languages (ACTFL), a superior level listener is defined as one who can “follow the essentials of extended discourse which is propositionally and linguistically complex, as in academic/professional settings, in lectures, speeches, and reports” (ACTFL, 1986); in other words, the proficiency level is similar to a native Chinese listener. It is curious that a Chinese 102 level student could score superior on the CCALT. This shows that the

results of the CCALT may not correctly reflect participants' actual listening level.

Additionally, the CCALT was administered in the first and second weeks of the semester, and because of the busyness of the first and second weeks of school, the average time that a participant took the test was 13.73 minutes. Finally, the CCALT results indicate that when the level of proficiency decreases, the time for taking the CCALT also decreases, which may have also affected the results of the CCALT.

Suggestions for Future Research

As mentioned in Chapter Two, no studies that have been done that investigate which cognitive listening strategy is used by low-proficiency level CFL learners. This study represents preliminary research examining the listening processes used by low-proficiency level CFL learners. More research needs to be developed in this area. In particular, more research using different types of listening passages needs to be done. In this study, the results show that low-proficiency level CFL learners do not use more bottom-up or top-down processing. It may be that because each dialogue listening passage has one main topic idea. A future study can be done by using different listening materials. In this study, four Chinese listening passages were selected from *Making Connections*. More research can compare participants' cognitive strategies usage, as participants listen to different listening passages. Participants used more top-down

processing to predict the information in the passages. Thus, for future study, the researcher suggests using different types of listening passages in order to compare the results and determine if participants use different cognitive strategies depending on subjects and difficulty of listening passages. It may be interesting to see if the content of listening passages changes the listeners' cognitive strategies approach.

As evident from the literature review, no research had been done determining the cognitive listening strategies used by low-proficiency level CFL listeners. This study is a cross sectional study, or a snapshot: the data was collected simultaneously at particular points of time. A longitudinal study needs to be done to more completely address the issues presented in this study by using the same participants over an extended period of time in order to examine when participants' listening comprehension levels increase and what cognitive strategies they use and to compare the results within and between individual groups (novice-low, novice-mid and novice-high): listeners at different proficiency levels may use varying sequences of strategies while listening.

Research investigating the production of Chinese tones generally receives more attention than research on the perception of tones. Some studies indicate that the perception and production of tones are interrelated (Elliot, 1991). However, investigating and discovering CFL learners' perception may help in understanding CFL learners'

difficulties with tones and reveal how tones may affect their cognitive strategy use. In summary, this study is a small step toward greater understanding of how CFL learners use cognitive strategies to listen to and understand short Mandarin Chinese dialogues.

This study hopes to encourage further research in this area and to develop awareness of the importance of investigating which cognitive strategies learners use while they listen.

Ultimately, this study hopes to create a framework upon which others may build to improve the understanding of listening comprehension within language acquisition and help Chinese as a Foreign Language learners acquire Mandarin Chinese.

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Appendix A

Consent Form

The study is being conducted by Teresa Yang, a graduate student in Language Acquisition at Brigham Young University. The purpose of this study is to gain information about cognitive processes of students learning Chinese as a second language.

This study has two parts. The first part may take approximately 60 minutes depending on the participants' listening level. The second part will take approximately forty minutes.

Part one of this study includes filling out the questionnaire below and completing the Chinese Computer-Adaptive Listening Test in 1031 JFSB. This should take approximately one hour depending on participants' listening level.

Part two of this study involves two listening passages per day for two regularly scheduled class periods; it will take approximately 20 minutes on each day.

Risks associated with this study are minimal. Because of the inherent difficulty in listening Chinese, you may experience some mental discomfort as you listen to the listening passages.

If you need any information regarding this research project; you may contact Teresa Yang, 726 N. 500 E. Apt # 3, Provo, UT 84606; phone (626) 672-8656, teresay0320@yahoo.com.

If you have any questions regarding your rights as research participants, you may contact with Dr. Renea Beck Beckstrand, Chair of the Institutional Review Board, 422 SWKT, Brigham Young University, Provo, Utah 84606; phone (801) 422-3873.

Participation in this survey is voluntary.

Strict confidentiality will be maintained. No individual identifying information will be disclosed. If you want to withdraw or discontinue participation in this study at anytime, you may contact me; phone (626) 672-8656.

Signing and returning this research survey indicates your consent to participate in both parts of this research.

Signature: _____ Date: _____

Print: _____ Date: _____

Appendix B Questionnaires

- Directions:
1. Allow approximately 3 minutes to complete this survey
 2. Please respond to all the questions.
 3. Return this survey to the lab assistant when completed.

Did you speak Chinese, or any dialect of Chinese while growing up? No Yes

If so, what dialect? _____

How long have you studied Chinese? _____

Where did you learn Chinese? _____

How many semesters of Chinese have you studied at the university level? _____

Have you studied Chinese at any other school besides BYU? If so, where ? No Yes

where _____

What Chinese classes are you currently enrolled in at BYU _____

Do you practice your listening outside of class hours? No Yes

If you do,

(a) what materials or resources do you use? _____

(b) how many hours per week you spend on these materials or resources? _____

On average, how much time do you spend outside class studying Chinese? _____

On average, how much time do you spend listening to Chinese? _____

What resource do you use for developing listening comprehension? (circle all that apply)

Radio Music Movie TV Online Others _____

Comments: _____

Appendix C
ACTFL Proficiency Guidelines

Novice Low	Understanding is limited to occasional isolated words, such as cognates, borrowed words, and high-frequency social conventions. Essentially no ability to comprehend even short utterances.
Novice-Mid	Able to understand some short, learned utterances, particularly where context strongly supports understanding and speech is clearly audible. Comprehends some words and phrases from simple questions, statements, high-frequency commands and courtesy formulae about topics that refer to basic personal information or the immediate physical setting. The listener requires long pauses for assimilation and periodically requests repetition and/or a slower rate of speech.
Novice High	Able to understand short, learned utterances and some sentence-length utterances, particularly where context strongly supports understanding and speech is clearly audible. Comprehends words and phrases from simple questions, statements, high frequency commands and courtesy formulae. May require repetition, rephrasing and/or a slowed rate of speech for comprehension.
Intermediate	Able to understand sentence-length utterances which consist of

Low	<p>recombinations of learned elements in a limited number of content areas, particularly if strongly supported by the situational context. Content refers to basic personal background and needs, social conventions and routine tasks, such as getting meals and receiving simple instructions and directions. Listening tasks pertain primarily to spontaneous face-to-face conversations. Understanding is often uneven; repetition and rewording may be necessary. Misunderstandings in both main ideas and details arise frequently.</p>
Intermediate Mid	<p>Able to understand sentence-length utterances which consist of recombinations of learned utterances on a variety of topics. Content continues to refer primarily to basic personal background and needs, social conventions and somewhat more complex tasks, such as lodging, transportation, and shopping. Additional content areas include some personal interests and activities, and a greater diversity of instructions and directions. Listening tasks not only pertain to spontaneous face-to-face conversations but also to short routine telephone conversations and some deliberate speech, such as simple announcements and reports over the media. Understanding continues to be uneven.</p>
Intermediate	<p>Able to sustain understanding over longer stretches of connected discourse</p>

High	<p>on a number of topics pertaining to different times and places; however, understanding is inconsistent due to failure to grasp main ideas and/or details. Thus, while topics do not differ significantly from those of an Advanced level listener, comprehension is less in quantity and poorer in quality.</p>
Advanced	<p>Able to understand main ideas and most details of connected discourse on a variety of topics beyond the immediacy of the situation. Comprehension may be uneven due to a variety of linguistic and extralinguistic factors, among which topic familiarity is very prominent. These texts frequently involve description and narration in different time frames or aspects, such as present, nonpast, habitual, or imperfective. Texts may include interviews, short lectures on familiar topics and news items and reports primarily dealing with factual information. Listener is aware of cohesive devices but may not be able to use them to follow the sequence of thought in an oral text.</p>
Advanced High	<p>Able to understand the main ideas of most speech in a standard dialect; however, the listener may not be able to sustain comprehension in extended discourse which is propositionally and linguistically complex. Listener shows an emerging awareness of culturally implied meanings beyond the</p>

	<p>surface meanings of the text but may fail to grasp sociocultural nuances of the message.</p>
Superior	<p>Able to understand the main ideas of all speech in a standard dialect, including technical discussion in a field of specialization. Can follow the essentials of extended discourse which is propositionally and linguistically complex, as in academic/professional settings, in lectures, speeches, and reports. Listener shows some appreciation of aesthetic norms of target language, of idioms, colloquialisms and register shifting. Able to make inferences within the cultural framework of the target language.</p> <p>Understanding is aided by an awareness of the underlying organizational structure of the oral text and includes sensitivity for its social and cultural references and its affective overtones. Rarely misunderstands but may not understand excessively rapid, highly colloquial speech or speech that has strong cultural references.</p>

Appendix D
CCALT Result

All levels of participants:

Chin 102			Chin 201		
#	Proficiency level	Time	#	Proficiency level	Time
1	low	10	22	intermediate-low	10
2	superior	15	23	intermediate-mid	10
3	intermediate -low	10	24	intermediate-low	10
4	intermediate -low	15	25	intermediate-low	10
5	intermediate -low	15	26	novice-mid	10
6	intermediate -high	15	27	novice-low	10
7	intermediate-low	8	28	intermediate-mid	15
8	intermediate-mid	15	29	intermediate-low	15
9	intermediate-mid	15	30	intermediate-mid	15
10	intermediate-low	15	31	intermediate-mid	10
11	intermediate-low	15	32	novice-mid	10
12	novice-mid	10	33	intermediate-low	10
13	novice-low	10	34	intermediate-mid	10
14	novice-high	10			
15	intermediate-low	10			
16	intermediate-low	15			
17	intermediate-low	15			
18	novice-high	15			
19	intermediate-low	15			
20	intermediate-low	15			
21	novice-low	10			

Chin 202		
#	Proficiency level	Time
35	advanced	25
36	intermediate-mid	15
37	intermediate-mid	15
38	intermediate-high	20
39	advanced-high	12
40	advanced	18
41	advanced	20

42	intermediate-low	10
43	intermediate-mid	15
44	intermediate-high	18
45	advanced-high	15
46	novice-high	10
47	advanced	15
48	intermediate-mid	15
49	novice-mid	15
50	intermediate-low	15
51	intermediate-high	15
52	Intermediate-high	20
53	intermediate-high	20

Low-Proficiency level participants (intermediate):

Participants	intermediate-low	Time	Participants	intermediate-mid	Time
C-13	intermediate-low	10	B-2	intermediate-mid	10
C-2	intermediate-low	15	B-7	intermediate-mid	15
C-5	intermediate-low	15	B-5	intermediate-mid	15
C-6	intermediate-low	10	B-1	intermediate-mid	15
C-3	intermediate-low	15	B-4	intermediate-mid	15
C-7	intermediate-low	15	B-6	intermediate-mid	15
C-1	intermediate-low	15	B-9	intermediate-mid	10
C-4	intermediate-low	15	B-3	intermediate-mid	10
C-14	intermediate-low	15	B-10	intermediate-mid	15
C-15	intermediate-low	15	B-8	intermediate-mid	10
C-10	intermediate-low	15			
C-12	intermediate-low	10			
C-8	intermediate-low	10			
C-11	intermediate-low	15			
c-9	intermediate-low	15			

Participants	intermediate-high	Time
A-2	intermediate-high	15
A-4	intermediate-high	20
A-1	intermediate-high	18
A-3	intermediate-high	15

A-6	Intermediate-high	20
A-5	intermediate-high	20

Appendix E

Making Connections Listening Passages

Passage A (CD # 1.16): Seeing a doctor

Idea Units	Speakers	Content	Points
1	A:	小李, (Little Li)	1
2		你回來啦! (you are back)	1
3	B:	對呀, (yes)	1
4		我回來了. (I am back)	1
5		我回來了已經好幾天了. (I had back for several days already)	2
6		從中國回來的, (from China)	2
7	A:	怎麼你一下子瘦了這麼多呀 (how come you suddenly become so skinny)	3
8	B:	是嗎! (really)	1
9	A:	我看你是不是在國內玩得太累了 (I guess you played too hard in Chinese)	3
10	B:	那倒不是, (That is not it)	2
11		在國內玩的挺開心. (I indeed had great time in China)	2
12		但是, (but)	1
13		就是我病了一個多星期 (I got sick for more than a week)	3
14	A:	怎麼回事呀! (What happened)	1
15	B:	其實開始也沒什麼, (actually, at the beginning nothing specific)	3
16		就是因為北京特別熱, (but because Beijing was extremely hot)	3
17		然後我家有冷氣. (and then my house had air conditioner)	2
18		一會兒冷, (suddenly cold)	1
19		一會兒熱, (suddenly hot)	1
20		我就感冒了. (then I got cold)	2
21	A:	一冷一熱就容易感冒. (suddenly cold and hot is easy to catch cold)	3
22		那你看醫生了嗎? (so did you go to see Doctor)	2
23	B:	沒有. (no)	1

24		開始我沒有去, (I did not go at the beginning)	2
25		我自己吃了一些感冒藥. (I ate some cold pills)	3
26		我覺得不是很嚴重, (I felt the sickness was not very serious)	2
27		所以我就在家待了. (so I stayed home)	3
28		吃感冒藥. (ate cold medicine)	2
29		吃了好幾天也不好. (the sickness did not get better after few days)	3
30	A:	是不是越來越重? (Was is more and more serious)	3
31	B:	對, (yes)	1
32		越來越嚴重, (more and more serious)	2
33		然後我又發燒,咳嗽. (then I had cough and fever)	3
34		我想不能不去醫院了, (I though I better go to hospital)	3
35		然後第二天我就去醫院看醫生. (then I went to see Doctor the next day)	3
36	A:	醫生怎麼說? (what did the Doctor say)	1
37	B:	醫生說: (the Doctor said)	1
38		很嚴重, (very serious)	2
39		讓我住醫院要打針. <i>the Doctor</i> (wanted me to stay at hospital and take shots)	3
40	A:	要你住院了. (wanting you to stay at hospital)	2
41		那肯定挺...(It must be pretty...)	2
42	B:	對, (yes)	1
43		我住醫院. (I lived at hospital)	2
44	A:	住了幾天醫院? (how many days you stay at hospital)	2
45	B:	住了三,四天醫院, <i>I</i> (stayed for three, four days)	3
46		然後在醫院躺了三,四天, (then I lied in the hospital for three, four days)	3
47		每天都打針. (had shots everyday)	3
48		然後來, (afterwards)	1
49		慢慢就好了. <i>I</i> (got better and better)	2

50	A:	然後, (then)	1
51		怪不得, (no wonder)	2
52		你現在這麼瘦. (you are so skinning now)	3
53	B:	反正下次, (anyway, next time)	1
54		我就是一生病就得去看醫生 (once I get sick, I will go to see Doctor)	3
55		不能拖 (can not wait)	2
56		越拖越嚴重 (the more you wait the worse it will get)	3
57	A:	對對對 (yes, yes, yes)	1
58		對對對 (yes, yes, yes)	1
59		對對對 (yes, yes, yes)	1

Total 59 idea units

One point: 20

Tow points: 19

Three points: 20

Passage B (CD # 2.4): Arriving late

Idea units	Speakers	Content	Points
1	A:	英南, (Ying-Nan)	1
2		你怎麼回事. (what happen to you)	2
3	B:	真對不起. <i>I am</i> (so sorry)	1
4		我來晚了. (I came late)	2
5	A:	怎麼, (What)	1
6		怎麼搞的. (how come)	1
7	B:	我那個車子做錯了, (I took a wrong bus)	3
8		我不認識路, (I was familiar with the roads)	2
9		結果問一個人, (then I asked someone)	2
10		他說坐10路車. (He said taking number 10 bus)	2
11		結果, (then)	1
12		我坐了反方向去了. (I took a wrong direction one)	3
13	A:	坐反了, (wrong direction)	3
14		應該是...(should...)	1
15	B:	對, (yes)	1

16		往動物園方向. (toward zoo director)	3
17		結果坐到”黑而地”去了. (then went to “mu-er-di)	3
18		然後, (then)	1
19		又坐回來, (returned back here)	1
20	A:	你看, (you see)	1
21		下一回出發要早一點. (next time, you have to leave earlier)	2
22	B:	好的, (yes)	2
23		好的. (yes)	2
24	A:	就不會在出這種錯. (then won't have make this kind of mistake)	2
25	B:	真對不起. <i>I am</i> (so sorry)	1
26	A:	沒關係, (it is all right)	1
27		沒關係, (it is all right)	1
28		你今天的裙子真漂亮, (your skirt is really pretty)	3
29		是新買的吗? (new one)	2
30	B:	這是我男朋友給我買的. (This was my boyfriend bought it for me)	3
31	A:	男朋友買的啊! (you boyfriend bought it)	2
32		他這麼好啊! (he is so nice)	1
33		真不錯哦! (really nice)	1
34		你的頭髮也很漂亮. (your hair is really pretty also)	3
35		今天怎麼回事! (what is going on)	2
36		是新剪的啊. (new cutting)	3
37	B:	頭髮是昨天在”大光明”理髮店剪的, (my hair was cut at “da-guang men” salon yesterday)	3
38		花了18 塊錢. (cost 18 dollars)	3
39	A:	還其實不算太貴.(It was not too expensive)	2
40		剪的不錯. (nice cut)	2
41		人多不多? (many people there)	1
42	B:	對, (yes)	1
43		那個店挺有名的. (that shop is pretty famous)	3
44		人好多都在排隊. (there are many people wait	3

		in the line)	
45	A:	我想今天看完了電影, (I am thing that today after watching the movie)	2
46		我們一塊去. (we go together)	1
47		然後, (then)	1
48		我把我的頭髮也剪一剪, (I also cut my hair)	3
49		好不好? (yes or no)	1
50	B:	好的, (yes)	1
51		我陪你去. (I go with you)	2
52	A:	好, (yes)	1
53		那我們快走吧! (then let's go quickly)	2
54	B:	來不及了吧, (not enough time)	3
55		幾點了.(what time is it)	1
56	A:	現在已經是12 點35了. (it is almost 12: 35 now)	3
57	B:	12 點35. (12:35)	2
58		那得快了. (we are better hurry)	2
59	A:	那我們快走吧. (then let's go quickly)	3
60	B:	快點走吧. (let's go hurry)	2
61	A:	好 (yes)	1

Total 61 idea units

One point: 20

Tow points: 18

Three points: 21

Passage C (CD # 1.1): Greeting

A: 先生, 請問中文系在哪?

B: 你要去中文系啊? 中文系就在你的前邊,你看就是前面的那個樓.

A: 在那啊! 謝謝你哦!

B: 不客氣. 我看你好像是新來的.

A: 對, 我是中文系新來的學生. 我姓李,叫李文英.

B: 李小姐你好. 請問你的名字怎麼寫? 李文英.

A: 李就是這個木子李, 然後文是中文的文,英是英國的英.

B: 這個名字很好聽. 我姓張.

A: 喔.
B: 我的名字叫張林生.
A: 是什麼林?
B: 林就是那個樹林的林, 生呢, 就是醫生的生.
A: 認識你很高興, 張先生.
B: 認識你我也很高興. 你是從什麼地方來的?
A: 我是從中國的長春, 在中國的東北.
B: 我知道長春.
A: 知道嗎?
B: 長春, 我知道. 你剛從中國來的啊?
A: 對, 剛來.
B: 我是從北京來的.
A: 那你到這有多長的時間呢?
B: 我到這兒已經有五年啦!
A: 這麼長的時間.
B: 對, 對.
A: 那我去中文系啦!
B: 我正好也要去中文系, 我就跟你一塊走.
A: 對, 走咱們一起去吧.
B: 好吧. 我們現在就走.
A: 好, 來.

A: Mr. Excuse me, where is Chinese Language Department?
B: Are you going to Chinese Language Department? It is just in front of you, you see, it is that building not far front you.
A: Where? Thank you.
B: Oh, you are welcome. You seem like a new comer.
A: Yes, I am a new student in Chinese language Department; my surname is Lee, name Lee Wen-Yin.
B: Ah, hello, Miss Lee. How to write your Chinese name “ Lee Wen-Yin”
A: Lee is the character of wood and child, and then Wen likes the character of Chinese; Yin is likes the character of England.
B: This is a beautiful name. My name is Zhang.
A: oh.
B: my full name is Zhang Lin-Sheng.
A: which Lin?

B: Lin like the character of forest, Sheng? It likes the character of Doctor.

A: Nice to meet you, Mr. Zhang.

B: It is my pleasure to meet to you too. Where are you come from?

A: I am from Chang-cheng city of China. It is near Northeast of China.

B: I know Chang-cheng city.

A: You know?

B: Chang-cheng, I know. Do you just come from China?

A: Yes, just got here.

B: I am from Beijing.

A: Oh, how long have you been here?

B: I have been here for five years already.

A: Oh, it is a pretty long time.

B: Yes, yes.

A: I am going to Chinese Language Department.

B: I am going to Chinese Language Department also, so I am going with you, let's go.

A: Yes, let's go.

B: Ok let's go now.

A: Ok.

Passage D (CD # 2.2): Getting together

A: 你好 英南

B: 你好 漢瑛

A: 你今天有沒有什麼事?

B: 我今天啊,有事情.

A: 那你這個周末忙嗎?

B: 我這個周末禮拜天,有一些事情.

A: 那麼禮拜六下午

B: 禮拜六下午有一點事情.

A: 禮拜六中午怎麼樣?

B: 禮拜六中午12 點以後可以.

A: 可以啊! 那這樣子吧, 你有沒有聽說過有一個新電影叫做” 大紅燈籠高高掛”.

B: 大紅燈籠高高掛.

A: 對, 一個新的中國電影.

B: 沒有, 沒有看過.

A: 那這樣子吧. 我們星期中午吃飯以後,我們可以一起看這個電影,好嗎?

B: 這個電影長嗎?

A: 比較長吧. 差不多 2 個半 小時到三個小時左右. 對, 不過很好看. 你想好不好我們去看.

B: 好, 可以先吃飯, 然後去看.

A: 對, 吃完午飯以後, 我們在”新華書店”門口集合. 然後, 我們一起去電影院看.

B: 哪個”新華書店”?

A: 就是在北京”新華書店”. 我會在”新華書店”大門口等你, 怎麼樣?

B: 可以.

A: 那好. 我們不見不散.

B: 行.

A: 在星期六的中午, 就是下午吃完飯以後一點鐘, 在”新華書店”門店前等你怎麼樣?

B: 好的.

A: 好, 不見不散. 再見啊!

B: 再見.

A: Hello. Yingnan

B: Hello. Henying

A: Do you have anything to do today?

B: Me, today? I have something to do.

A: How about are you busy this weekend?

B: This Saturday I have something to do.

A: How about Saturday afternoon?

B: Saturday afternoon have some affairs.

A: How about Saturday noon?

B: I will be available after 12:00on Saturday.

A: Available? How about this? Have you heard about a movie's name "Da Hong Den Lon Gao Gao Gua".

B: "Da Hong Den Lon Gao Gao Gua".

A: Yes, it is a new Chinese movie.

B: No, never see it.

A: How about this. Let's go to watch this movie after we eat lunch on Saturday noon.

B: Is it a long movie?

A: Yea, it is kind of long. It takes around two hours and half to three hours, but it is a very good movie. What do you think we go to watch together?

B: Ok, eating lunch first and then going to watch movie.

A: Ok, after lunch, we meet at "xin hua" bookstore and then we go to movie theater

together.

B: Which “xin hua” bookstore?

A: It is Beijing “xin hua” bookstore. How about that I wait for you in front of the main gate of “xin hua” bookstore.

B: Ok.

A: Sounds good. “Bu jian bu san”

B: Ok

A: After lunch, I will wait for you in front of “xin hua” bookstore at 1:00 on Saturday noon. What do you think?

B: Ok.

A: “Bu jian bu san” Bye.

B: Bye

Appendix F
Answer Sheets

Passage A (CD # 1.16):

- Please fill out last four digits of BYU ID number and indicate your native language.
 - After the second time playing, please write down everything you can recall and similar wording in English.
-

BYU ID number _____ Native language _____

Recall:

Passage B (CD # 2.4):

- Please fill out last four digits of BYU ID number and indicate your native language.
 - After the second time playing, please write down everything you can recall and similar wording in English.
-

BYU ID number _____ Native language _____

Recall:

