Exploring Students’ Use of Metacognitive Strategies in Listening Comprehension of the TEM-4

A Study of English Majors at a Chinese College

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Abstract

Listening comprehension plays a vital role in Chinese students’ acquisition of English; however, the current situation of students’ listening comprehension learning is not satisfactory. As one category of learning strategies, metacognitive strategies are essential for successful learning. Thus, the aim of this study is to investigate the students’ frequency of metacognitive strategy use, and the relationship between their use of metacognitive strategies and their performance in a listening comprehension test from the TEM-4 test. 100 sophomores of English major were chosen to participate in the test and then divided into three levels based on their scores. Afterwards, 10 students from each level were randomly selected, which means there was a total of 30 students and they were asked to participate in the questionnaire. Through the data collected from the listening comprehension test and the questionnaire, the investigation finds that on the whole, the 30 students use metacognitive strategies in the medium level. By comparison, the students in the three groups utilize metacognitive strategies in different levels. Moreover, there is a positive relationship between 30 students’ frequency of metacognitive strategy use and their performance in the listening comprehension test. However, there are 4 students whose frequency of metacognitive strategy use and scores in the listening comprehension test show a negative relationship. Thus, an interview was conducted among them to find the reasons. These include that they have different difficulties in using metacognitive strategies or dealing with the listening comprehension tasks, and then some suggestions are put forward to help teachers improve their teaching quality, and students enhance their listening comprehension abilities.

Keywords: metacognitive strategies; listening comprehension; relationship;
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Appendix I

Appendix II
1. Introduction

As a world-wide language, English has become increasingly important among Chinese people with frequent communication of politics, economy and culture with foreign countries. Therefore, English is taught as a compulsory course not only for English majors, but also for many non-English major students in China.

Among the four basic skills, namely listening, speaking, reading and writing, listening plays a vital role in the acquisition of English. Research has shown that in daily life, 40-50% of people’s communication time is spent on listening (Vandergrift, 1999). Moreover, based on Krashen’s input hypothesis, listening provides a comprehensible input for learners in communication, which assists people’s understanding of the communicational information (Gass & Selinker, 2008). Therefore, for students who learn English as a second or a foreign language (SL or FL), it is necessary to improve their learning abilities of listening, as Feyten has pointed out that listening comprehension is an important part in second or foreign language acquisition (Feyten, 1991).

Listening comprehension has gained more and more attention in recent years. For example, in the case of China, listening comprehension is a compulsory course for English majors. In many nation-wide tests, such as the College English Test Band Four or Six (CET-4/6) and the Test for English Majors Grade Four or Eight (TEM-4/8), listening is one of the necessary testing components. However, in spite of the fact that more attention has been paid to listening, the current situation of listening learning among college students is not satisfactory in China. According to Ren (2009), it is difficult for Chinese students to communicate with native speakers as they cannot understand what others say. In addition, their listening scores are relatively low in the CET-4/6 or the TEM-4/8. In addition, listening remains one of the least understood processes in SL or FL acquisition (Morley, 1991).

Thus, many studies try to explore the causes of the difficulties in students’ listening ability. One of the causes is that students lack learning strategies or that they cannot use learning strategies (Liu, 2007). As one category of learning strategies, metacognitive strategies are essential strategies for learners’ successful learning in SL/FL acquisition (Oxford, 1990). Moreover, the application of metacognitive strategies to writing, reading and other language
areas has shown that metacognitive strategies are important media in enhancing learners’ performance. Compared with other aspects of language, the number of studies about the application of metacognitive strategies in listening is limited (Holden, 2004). Thus, it is worth finding out whether metacognitive strategies also play an important role in students’ successful listening comprehension performance.

1.1 Aim

The aim of this study is to investigate the frequency of metacognitive strategies used by English majors in three level groups in the listening comprehension process and find out whether there is a relationship between their metacognitive strategy use and their performance in the listening comprehension test. A hypothesis is that there is a positive relationship between their metacognitive strategy use and their performance in the listening comprehension test. Furthermore, the study will put forward some suggestions for listening comprehension learning and teaching based on the analysis and findings.

1.2 Material and method

In order to collect adequate and authentic information and data, this study includes one listening comprehension test, one questionnaire and one interview. One hundred participants were firstly selected to participate in the test, and then among the 100 students, 30 were randomly chosen to take part in the questionnaire. Afterwards, the interview was conducted among some of the 30 participants. Through detailed analysis of the data collected from the test, the questionnaire and the interview, this study tries to reach sound conclusions. A clear description of the material, methods and the procedure of this study is elaborated in this part.

1.2.1 Participants

The participants in this study are 100 sophomores majoring in English at a college in China. All of them are native Chinese speakers with a similar background in terms of approximately 8 years of learning English as a compulsory course without any formal teaching of metacognitive strategies. The participants all attend the same listening course taught by the same teacher twice per week for three semesters after entering the college.

All these 100 students were invited to take part in a listening comprehension test (see section 1.2.2). Based on their performance in the test, they were divided into three levels: a higher
level (Level H), an intermediate level (Level I) and a lower level (Level L). Students of the higher level have a good proficiency in listening comprehension and they get a higher score in the test. Students of the intermediate level make more mistakes than those of the higher level and they get a lower score. The students of the lower level have some difficulties in listening and thus have the lowest scores. From each level, only 10 students were selected randomly to participate in the questionnaire (see section 1.2.3) in order to guarantee an equal and sufficient number of students in each level. That is to say, there is 30 students in total took part in the questionnaire.

Choosing students from English majors as participants of this study has several reasons. First, as listening comprehension is a component of the TEM-4 test, they need to pay more attention to it in order to pass the test. After going through many tests of listening comprehension, they have a good knowledge of their strengths and weaknesses. Thus it is assumed that they have developed some strategies in coping with listening problems while doing listening tasks. Second, as the researcher is not in China, an assistant is needed to help the researcher carry out this investigation. One of the researcher’s friends who teaches listening comprehension for sophomores of English majors is in that college, which makes it convenient to conduct the investigation with her help. In order to guarantee the accuracy and reliability, detailed information of the investigation is sent to her via e-mail and she is asked to send back the results after finishing the investigation via e-mail as well. However, the most important thing is that she will not participate in the analysis of the data.

1.2.2 Test

To get information about the participants’ listening performance, a listening comprehension test (see Appendix I) was conducted to collect their scores. The listening test chosen from the TEM-4 test paper of 2010 is the latest one as TEM-4 2011 will be carried out in April of 2011, which is too late for this study. The test is one component of TEM-4 2010 which is organized and administered nationally by the Higher Education Department of China’s Ministry of Education. Therefore, the contents of this test are authoritative, which indicates that the testing results, as vital data for the analysis, are convincing and objective.

The listening test is made up of three parts. Part one constitutes three conversations, part two consists of three passages and part three is a news broadcast with six news items. There are 10 questions in each part, with four choices in each question. The total score is 30 points with
each point being given to each correct choice. The listening test was conducted among 100 students in the classroom and it only lasted for 15 minutes.

1.2.3 Questionnaire

In this study, a questionnaire (see Appendix II) on metacognitive strategy use in listening comprehension is utilized as a method aimed at surveying the situation of students’ use of metacognitive strategies. The questionnaire consists of 15 items and they are descriptions of students’ listening comprehension activities or behaviours. Based on O’Malley and Chamot’s (1990) classification of metacognitive strategies into planning strategies, monitoring strategies and evaluation strategies and Underwood’s (1989) division of learning stages, namely, pre-learning stage, while-learning stage and post-learning stage, all the items in the questionnaire are divided into three parts. That is, item 1 to item 5 are questions about planning strategies before listening. Item 6 to item 11 are designed to evaluate the employment of monitoring strategies during the listening process. The remaining four items are about evaluation strategies after listening.

The questions are of the five-point scale, consisting of a statement to which respondents will indicate one of the five responses: 1 “never or almost never true of me”, 2 “usually not true of me”, 3 “sometime true of me”, 4 “usually true of me” and 5 “always or almost always true of me”. Thus, higher scores suggest greater use of the strategies. The participants are required to choose the corresponding number with reference to their own experiences in listening. All the 15 items in the questionnaire are originally designed in Chinese to avoid any difficulty or misunderstanding caused by the language barrier which may influence the objectiveness of the results, and the questionnaire is then translated into an English version. The 30 questionnaires were given out via e-mail and the participants were required to send them back after completing them. The information about the frequency of metacognitive strategies used by English majors can be acquired based on the data of this questionnaire.

1.2.4 Interview

An interview is carried out among any students whose frequency of metacognitive strategy use and scores in the listening comprehension test show a negative relationship, which is opposite to the hypothesis. The participants were individually asked to take part in the interviews through a video conference software named QQ on the Internet.
The questions of the interview are listed below:

1) Combine your performance in the listening test with the frequency of metacognitive strategy use. Talk about your problems in listening or in using metacognitive strategies.
2) Do you think it is necessary to teach the knowledge of metacognitive strategies in listening classes?

Question 1) is designed to find out their problems in listening or in using metacognitive strategies and the possible reasons why they got a higher score in test, but used metacognitive strategies less or vice versa. Question 2) is designed to provide the listening teachers and listeners with some suggestions.

1.2.5 Procedure

The whole investigation can be divided into the following parts. First, 100 students from the college with the above-mentioned features were asked to take part in the listening comprehension test, and then they were classified into three levels based on their scores of the test. Second, 10 students from each level were randomly chosen to participate in the questionnaire. In other words, there is a total of 30 students who were required to do the questionnaire and the questionnaires were given out by e-mails to these students. Through the calculation of the mean scores and standard deviations of the questionnaire, the study presents the students’ overall frequency of metacognitive strategy use and then by comparison of the data, the study investigates the frequencies of metacognitive strategy use among the three level groups. Furthermore, by the combination of the results of the test and questionnaire, this study explains the relationship between the students' metacognitive strategy use and their scores in the listening comprehension test. Third, in order to get possible reasons, the interview was carried out among students whose frequency of metacognitive strategy use and scores in the listening comprehension test show a negative relationship. What is more, some suggestions for listening comprehension teaching and learning are provided based on the analysis and discussion of this study.

2. Theoretical Background

As has been mentioned in the introduction section, listening comprehension is a vital part not only in daily communication but also in SL or FL learning. Metacognitive strategies play an essential role in successful learning, which makes it worthy to probe into the relationship
between students’ metacognitive strategy use and their listening comprehension performances. Thus, listening comprehension and metacognitive strategies, as the main theoretical concepts in this essay, will be introduced in the following sub-section to support this investigation with reliable theoretical background.

2.1 Listening comprehension

For some time, people realize the importance of listening comprehension in facilitating SL or FL learning. Therefore, it is necessary to present the concept and characteristics of listening comprehension in this section.

2.1.1 The concept of listening comprehension

So far, the significance of listening comprehension has been realized not only by students and teachers, but also by the professional researchers and scholars in the field of SL/FL acquisition. However, there is no widely accepted definition of listening comprehension even though many attempts have been made to define it. Likewise, Liu (2007) says that it is difficult to give a well-defined definition of listening comprehension although the definitions given by different researchers and scholars share some common points.

Listening comprehension has been explained by many researchers and scholars. In brief, listening comprehension is often regarded as a passive activity in which listeners are forced to receive the audio input passively and then output what they have comprehended (Holden, 2004). However, on the contrary, many other researchers point out that listening comprehension is an active process. For example, according to Thompson (2003), in the process of listening comprehension, the listeners actively receive and process the aural input, compound the information and then interpret it. O’Malley, Chamot and Küpper (1989) view listening comprehension as an active and conscious process, in which listeners focus their attention on selecting the important information from the speakers’ aural input, try to comprehend the meaning of the input, and finally combine what they hear with the contextual information and previous knowledge to create oral output. From these definitions, we can indicate that listening comprehension is a process-oriented activity in which listeners need to deal with the input actively step by step.
Among the various definitions, a representative and comprehensible one is propounded by Vandergrift (1999) in his article *Facilitating Second Language Listening Comprehension: Acquiring Successful Strategies*. He gives the definition as follows:

> Listening comprehension is a complex, active process in which the listeners must discriminate between sounds, understand vocabulary and grammatical structures, interpret stress and intonation, retain what was gathered in all of the above, and interpret it within the immediate as well as the large social structural context of the utterance. Co-ordinating all of this involves a great deal of mental activity on the part of the listener (Vandergrift, 1999:168).

This definition comprehensively summarizes the complex process of listening comprehension as it expresses that what listeners should do with the aural input and how they should to explain the input in order to make the output intelligible and reasonable. In addition, Vandergrift also specifically points out that listeners devote a great deal of mental activities in the process of completing the listening tasks. In other words, listening comprehension is a mental exertion when listeners deal with the aural language input.

Although different people explain the concept of listening comprehension in different ways, we can base our understanding of the concept on the above definitions and gain a general understanding of listening comprehension. That is, in listening situations, listeners receive aural input and then comprehend it based on the particular communicational situations. Afterwards, listeners interpret it and at last present it by oral production. Thus, in general, listening comprehension can be regarded as an active, conscious and complex activity.

Based on the above-mentioned researchers’ definitions of listening comprehension, we can see that there are three main characteristics of listening comprehension. First, listening comprehension is an active activity. Listeners do not receive information passively but actively. They not only actively apply their phonetic, grammatical and prosodic knowledge, but also recall the stored background knowledge to assist the understanding of input. Second, listening comprehension is a creative activity. Listeners construct or assign meanings based on the given information or their experience and background knowledge. Thus, we can imply that different listeners have different understandings of the same conversation. Third, listening comprehension is an interactive activity as both speakers and listeners are involved. That is, during the listening comprehension process, speakers and listeners exchange information, so it is an interactive process (Liu, 2007).
2.1.2 A brief introduction to listening comprehension in the TEM-4

The TEM-4 is a yearly nationwide English language test for English majors in China. The students are asked to take the TEM-4 after they have completed two years of English learning in college. In addition, the TEM-4 is vital for English majors since passing the TEM-4 is a requirement for students to graduate with the Bachelor’s degree. Listening comprehension is a basic component of the TEM-4 which is made up of five other parts, that is, dictation, cloze, grammar and vocabulary, reading comprehension and writing. According to the Higher Education Institution English Major English Teaching Syllabus (Higher Education Institution English Teaching Committee Group, 2004), the listening comprehension section lasts 15 minutes and the total score of the TEM-4 is 100 marks, in which listening comprehension takes up 15 marks. The main purpose of putting the listening comprehension part into the TEM-4 is not only to test the level of students’ listening abilities but also make them aware of the importance of listening comprehension in learning and real-life communication. Therefore, students should attach importance to the learning of listening comprehension and exert themselves to pass the TEM-4.

Listening comprehension has its specific features and it also plays an important role in the TEM-4. For this reason, it is necessary for students to gain a full command of listening comprehension in order to listen correctly and pass the TEM-4 successfully. Thus, to enhance students’ listening comprehension proficiency in SL/FL learning or acquisition, some learning strategies, especially metacognitive strategies, can be adopted during the process of listening.

2.2 Learning strategies

In order to understand metacognitive strategies clearly and completely, it is necessary to mention learning strategies in general as metacognitive strategies pertain to them.

2.2.1 The concept of learning strategies

The concept of learning strategies was first introduced by Rubin in the 1970s (Liu, 2007). Since then, researchers in the field of SL/FL acquisition have studied learning strategies as they serve as assistants in learning tasks (Chamot, 2005).

Different researchers explain learning strategies from different angles. From the aspect of the aim of learning strategy use, Oxford (1989) says that in order to improve SL/FL learning,
learning strategies are used as plans, methods or actions that the listeners adopt which can make the target language learning more successful and enjoyable. From the aspect of the relation between learning strategies and learning process, learning strategies are particular techniques and approaches utilized by SL / FL learners in the process of acquiring or using the target language and they are used more frequently when the learners meet problems (Ellis, 1994). Based on the angle of information processing, learning strategies are thoughts or behaviours that are employed by learners to help them to understand, acquire and keep the new information in mind (O’Malley & Chamot, 1990). From the above explanations, we can demonstrate that although learning strategies are interpreted from different aspects, researchers agree that learning strategies are means or methods exploited by learners to facilitate their learning.

2.2.2 Classifications of learning strategies

Learning strategies can be classified depending on different criteria. One of the widely accepted classifications is made by O’Malley and Chamot (1990). They hold the view that language entails active and dynamic mental processes and thus divide learning strategies into three major categories: metacognitive strategies, cognitive strategies and social/affective strategies. Metacognitive strategies provide a way for learners to plan for the coming learning tasks, monitor the process and at last assess the output after the learning activity is completed. Cognitive strategies are tools in helping learners to solve the learning problems or complete the learning task during the process of manipulating the target language. Social/affective strategies are mainly concerned with cooperative learning to reach a common goal and ask questions for clarification and self-talk to redirect thoughts (O’Malley & Chamot, 1990). Their classification is comprehensive and reasonable as they combine learning strategies with learners’ knowledge processing. In line with the topic of this essay, in the following section only metacognitive strategies will be focused on in order to offer an important and useful theoretical background.

2.3 Metacognitive strategies

As one kind of learning strategies, metacognitive strategies have caught much attention in recent years. Therefore, in this section, a clear introduction to metacognition, metacognitive strategies and their classifications is given to provide a clear framework of the relevant theories.
2.3.1 The concept of metacognition and metacognitive strategies

When referring to metacognitive strategies, we need mention the concept of metacognition. The concept of metacognition was introduced by the American psychologist Flavel in 1976 (Ren, 2009). Metacognition is described as “one’s knowledge concerning one’s own cognitive processes or anything related to them” (Flavel, 1976:232). To put it in more detail, metacognition refers to learners’ own awareness of thinking about how to deal with the learning tasks and their ability to revise these thinking and learning. As Wenden (1987) points out, it is beneficial to apply the concept of metacognition to SL/FL learning. To be more concrete, what she means is that with the application of the awareness of metacognition in their learning processes, learners can achieve efficient learning and better performance.

Based on Wenden (1987), metacognitive strategies are one component of metacognition and according to O’Malley and Chamot (1990), metacognitive strategies have been frequently applied to various receptive or productive learning tasks. As regards metacognitive strategies, different researchers explain them differently by giving different definitions. Oxford regards metacognitive strategies as “actions which go beyond purely cognitive devices, and which provide a way for learners to coordinate their own learning process” (Oxford, 1990:135). In detail, she points out that metacognitive strategies allow learners to modulate their learning processes by concentrating, arranging, planning and evaluating. According to Ellis (1994), metacognitive strategies refer to the regulation of language learning through planning, monitoring and assessing with relevant knowledge of cognitive processes. In the view of Cohen (2000), metacognitive strategies are approaches that divide language learning activities and language use events into three parts: first, assessing and planning the learning tasks before doing the tasks; second, planning and evaluating the process, and at last, evaluating the results.

From the above definitions, it is clear to see that there are similarities in different researchers’ interpretations of metacognitive strategies. To be specific, they regard metacognitive strategies as approaches, actions and skills including planning, monitoring and evaluating used in particular language learning through which learners manage to regulate and guide their learning.

Among these definitions of metacognitive strategies, the one made by O’Malley and Chamot (1990) is comparatively more detailed and comprehensive. Therefore, it is widely accepted and used. They point out that metacognitive strategies are “higher order executive skills”
(O’Malley & Chamot, 1990: 44) through which learners oversee, regulate or direct their learning processes. Concretely speaking, by combining Underwood’s (1989) division of learning stages and metacognitive strategies, learners think about and plan what to do next in the pre-learning stage, monitor the learning process in the while-learning stage and self evaluate the results in the post-learning stage. From these explanations of metacognitive strategies, we can draw a general conclusion here that metacognitive strategies are a set of strategies which learners can make use of to guide their learning processes in order to achieve better learning results.

### 2.3.2 Classifications of metacognitive strategies

As mentioned above, researchers give various definitions of metacognitive strategies and the same can be seen in the classifications of metacognitive strategies. However, among the classifications of metacognitive strategies, the ones proposed by O’Malley and Chamot (1990) and Oxford (1990) are most typical and influential in the field of SL/FL learning and acquisition (Wang, 2001).

Oxford broadly classifies the metacognitive strategies into three groups: “centering your learning, arranging and planning your learning and evaluating your learning” (1990:136) and each group consists of several sub-categories. There are three sub-categories in the "centering your learning" group, namely, combing the already known material, paying attention, and focusing on the input by delaying the output. In the "arranging and planning of your learning" group, there are five sub-categories: finding out the learning task, organizing, setting goals, identifying the purposes of the task, and planning for it. Self-monitoring and self-evaluating are two sub-categories of the "evaluating your learning" group (Oxford, 1990). Compared with O’Malley and Chamot’s classification below, the one made by Oxford is relatively broad and general even though she also describes how to use metacognitive strategies in the pre-learning, while-learning and post-learning stage.

Based on O’Malley and Chamot’s (1990) definition, metacognitive strategies are classified into three categories: planning strategies, monitoring strategies and evaluation strategies. Furthermore, they have conducted empirical research to propose a comprehensive list of the involved sub-categories of the above-mentioned three categories. Therefore, Table 1 on the next page is based on O’Malley and Chamot’s (1990) classification of metacognitive strategies to present a distinct framework of the classification of metacognitive strategies.
Table 1. O’Malley and Chamot’s classification of metacognitive strategies

<table>
<thead>
<tr>
<th>Categories</th>
<th>Sub-categories</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Planning</strong></td>
<td>1. Advance organization</td>
<td>i.e., making clear of the aim of the task.</td>
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<tr>
<td></td>
<td>2. Organization Planning</td>
<td>i.e., proposing plans or strategies for handling the task.</td>
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<tr>
<td></td>
<td>3. Directed attention</td>
<td>i.e., deciding to pay whole attention on the learning task in advance to ignore the distractions.</td>
</tr>
<tr>
<td></td>
<td>4. Selective attention</td>
<td>i.e., deciding to pay more attention to the specific or detailed aspects to complete the learning task.</td>
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<tr>
<td></td>
<td>5. Self-management</td>
<td>i.e., finding and arranging the conditions which can assist the completion of the learning task.</td>
</tr>
<tr>
<td><strong>Monitoring</strong></td>
<td>1. Comprehension monitoring</td>
<td>i.e., checking the understanding of the task based on the input.</td>
</tr>
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<td></td>
<td>2. Production monitoring</td>
<td>i.e., checking and correcting the production of the task.</td>
</tr>
<tr>
<td></td>
<td>3. Auditory and visual</td>
<td>i.e., making decisions based on how input sounds and looks.</td>
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<td></td>
<td>monitoring</td>
<td></td>
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<td></td>
<td>4. Styling monitoring</td>
<td>i.e., checking or correcting the output based on one’s internal learning styles.</td>
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<tr>
<td></td>
<td>5. Strategy monitoring</td>
<td>i.e., tracking whether the used strategies work.</td>
</tr>
<tr>
<td></td>
<td>6. Plan monitoring</td>
<td>i.e., checking whether the advanced plans work.</td>
</tr>
<tr>
<td></td>
<td>7. Double-checking monitoring</td>
<td>i.e., tracking one’s understanding based on the previous input or through input for the second time</td>
</tr>
<tr>
<td><strong>Evaluation</strong></td>
<td>1. Production evaluation</td>
<td>i.e., assessing the output after the completion of the learning task.</td>
</tr>
<tr>
<td></td>
<td>2. Performance evaluation</td>
<td>i.e., evaluating one’s overall performance during the task.</td>
</tr>
<tr>
<td></td>
<td>3. Ability evaluation</td>
<td>i.e., judging one’s ability in the performance of the task.</td>
</tr>
<tr>
<td></td>
<td>4. Strategy evaluation</td>
<td>i.e., evaluating the used strategies.</td>
</tr>
<tr>
<td></td>
<td>5. Language repertoire</td>
<td>i.e., assessing how much one has known of the language, such as the words.</td>
</tr>
</tbody>
</table>
It is necessary to point out that all the components of metacognitive strategies, not only the three categories, but also their sub-categories are independent. However, all the components of metacognitive strategies interact with each other. In other words, they can be used individually in one listening stage or in some listening stages, or sometimes they can be used together in one listening stage or in some listening stages (Liu, 2007).

The present study, especially the questionnaire of this study, is based on the classification of O’Malley and Chamot (1990) not only because their classification is the most typical and influential in the field of SL/FL acquisition, but also because it is comprehensive and specific in depicting what learners should do in different learning stages.

### 2.3.3 The importance of metacognitive strategies in SL/FL acquisition

As mentioned in section 1, metacognitive strategies play a significant role in SL/FL learning and acquisition. Moreover, there are many evidences that have proved the importance of metacognitive strategies applied to the field of SL/FL learning and acquisition.

Anderson (1991) says that metacognitive strategies are the most essential strategies for developing students’ learning skills. Likewise, metacognitive strategies, as essential skills, offer students an efficient, effective and systematic way to enhance their learning performances by using planning, monitoring and evaluating strategies (Hamzah & Abdullah, 2009). The most well-known researchers of metacognitive strategies, O’Malley and Chamot (1990), also emphasize the necessity of employing metacognitive strategies in SL/FL learning as they state that without metacognitive strategies, learners may lose their direction or ability to plan, monitor their learning process, and evaluate the output. Coskun (2010) even claims that without metacognitive strategies, learners will lose their directions in further study. From the above-mentioned researchers’ claims, we can deduce that metacognitive strategies serve as an assistant in students’ learning processes.

To be more specific, the importance of metacognitive strategies in listening comprehension has been manifested as well. According to Coskun (2010), metacognitive strategies have a direct and beneficial influence on listening performance. During the listening process, the learners with more knowledge of metacognitive strategies will be more active in finding and solving the problems rather than accepting or ignoring them (Goh, 2000). In brief, O’Malley and Chamot (1990) generalize the relationship between metacognitive strategies and listening
comprehension, that is, metacognitive strategies are important in enhancing students’ listening comprehension and helping learners to adjust themselves during listening.

The above claims indicate the value of metacognitive strategies in SL/FL acquisition as well as the importance of metacognitive strategies in listening comprehension. In the following sub-section, previous studies on metacognitive strategies in listening comprehension are elaborated.

2.4 Previous studies of metacognitive strategies in SL/FL learning and teaching

The importance of metacognitive strategies in helping learners enhancing their learning abilities has been proved by many scholars and researchers, and so far many studies of metacognitive strategies on SL/FL acquisition have been done.

O’Malley and Chamot (1990) conducted an experimental study to show whether metacognitive strategies have a positive influence on learners’ SL learning in the aspects of speaking. In the study, they combined metacognitive strategies with cognitive strategies and social/affective strategies. They divided the randomly selected 75 SL acquisition participants from high school into three groups: the metacognitive group in which 25 students were taught the knowledge of metacognitive strategies; the cognitive group in which 25 students were taught the knowledge of cognitive and social/affective strategies, and the control group in which the remaining participants were taught no special knowledge of any strategies. The collected statistical data shows that the participants from the metacognitive group achieved the highest scores on the speaking task among the three groups. Thus, they sum up the results that metacognitive strategies play an important role in improving students’ SL learning and then suggest that the teaching of metacognitive strategies in the classroom is essential (O’Malley & Chamot, 1990).

Although the studies on metacognitive strategies in China started late, there are still many studies carried out. For example, Yu, Wang and Li (2003) conducted a study into the application of metacognitive strategies to English reading comprehension among 103 college students and 92 middle school students. The results demonstrate that the students who got a high score in reading comprehension tests have a better sense of applying metacognitive
strategies and they have also employed metacognitive strategies more frequently than the ones who got a low score. This research directly manifests the benefits of using metacognitive strategies in language learning.

Moving on to the field of listening, we can also find many previous studies. For instance, according to Vandergrift (1999), the importance of metacognitive strategies in facilitating listening comprehension was first demonstrated by Stanchina (1987) who carried out a study in which she proved that good listeners use metacognitive strategies, especially the monitoring strategies, to assist their listening by finding out the difficulties of certain listening tasks and retrieving the knowledge or strategies to cope with these difficulties. As many studies have proved the advantages of metacognitive strategies in listening comprehension, some researchers begin to connect listening comprehension teaching with metacognitive strategies in SL/FL classrooms. Yang (2007) divided the listening class into pre-listening stage, while-listening stage and post-listening stage. Integrating metacognitive strategies with these stages, he tried to train and develop students’ sense of planning in the pre-listening stage, monitoring in the while-listening stage and evaluating in the post-listening stage. At the end of his study, he found a positive result, namely that the students’ listening abilities were enhanced after having been exposed to this metacognitive strategy-based teaching model. Therefore, he recommended teachers to adopt this teaching method.

Such studies show us an explicit view that applying metacognitive strategies to the field of SL/FL learning or teaching is beneficial to improve learners’ learning ability and teachers’ teaching quality. Therefore, on the one hand, this present study will investigate the relationship between students’ metacognitive strategy use and their listening comprehension performance. On the other hand, this study will offer some suggestions to learners and teachers in order to help students cultivate a sense of using metacognitive strategies in SL/FL learning and teachers adopt suitable methods in SL/FL teaching.

3. Analysis and discussion

This section concentrates on the analysis and discussion of the results based on the collected data from the test, the questionnaire and the interview. It is divided into five parts: the first part makes a general survey of the listening comprehension test. In the second part, based on the results collected from the questionnaire, the general situation of metacognitive strategies
used by English majors is firstly analyzed and discussed and secondly, there is a comparison of metacognitive strategy use among the three levels. Thirdly, the relationship between the students’ use of metacognitive strategies and their performance in the listening comprehension test is carefully probed. The third part deals with the results of the interview to explore the reasons behind the negative relationship between students’ metacognitive strategy use and their performance in the listening comprehension test. The fourth part brings forward some suggestions on listening comprehension teaching and learning, and the last part discusses the limitations of this study.

3.1 Listening comprehension test

For this part, 100 participants were firstly invited to take part in the listening comprehension test and then, based on their listening comprehension scores, they were divided into three different levels, namely, the higher level (Level L), the intermediate level (Level I) and the lower level (Level L). Afterwards, 30 students were randomly chosen. Among these 30 students, 10 students are from the higher level (Level L), another 10 from the intermediate level (Level I) and the remaining 10 from the lower level (Level L). The equal selection of students in each group can ensure that the results are relatively fair and reliable. In the following, the detailed data collected from this test are analyzed. For conciseness and convenience, the numbers in this study have sometimes been rounded-off and kept to two decimal points.

According to the Chinese scoring standard, students who get 80% of the total score belong to the Level H group; students who fail to get 60% of the total score belong to the Level L group, and the ones between these two levels are put into the Level I group (Liu, 2007). The total score of the listening comprehension test is 30, which means that students who got 24 or above belong to the Level H group, students who got 19 to 23 can be ranked into the Level I group, and students who got 18 or below belong to the Level L group. In the following, the results of the listening comprehension test are analyzed and discussed from two aspects, that is, one from the aspect of 100 students and the other from the angle of 30 students.

After checking the correct answer, the 100 students’ scores were collected. Based on the calculation, the mean score of this listening comprehension test is 20.44 (M=20.44), which shows the average situation of 100 students’ performance. The data also reveal that the
highest scoring is 27 and the lowest score is 14, and by calculating, there is 13 points difference between the highest score and the lowest score, from which we can see that there is a great disparity between students’ achievement. According to the classification standard, there are 23 students belonging to the Level H group; 45 students to the Level I group, and the remaining 32 students to the Level L group. Figure 1 below clearly describes the distribution of the 100 students in the three level groups.

Figure 1. Distribution of 100 students in three-level groups

![Distribution of 100 students in three-level groups]

Afterwards, from each group, 10 students were randomly selected. In the following, the data got from these 30 students’ listening comprehension test is comprehensively introduced and analyzed. The results of their performance are shown in Table 2 on the next page.

From the table, we can see that with the highest score being 27.00 and the lowest score being 24.00, the mean of the scores of the Level H group is 25.50, which indicates that it is 4.70 higher than the overall mean score (M= 20.80) of this test. The Level I group’s mean score is 21.00, which is approaching to the overall mean 20.80 and the highest score of this group is 23.00 and the lowest 19.00. However, with the highest score being 17.00 and the lowest score being 14.00, the mean score of the Level L group is only 15.90 and it is 4.90 lower than the overall mean score (M= 20.80). As to the standard deviation, it indicates the way that the scores are distributed around the mean and the high number of the standard deviation indicates the great difference of scores (Hughes, 2000). With the total standard deviation
being 1.39, the standard deviations of the three groups are 1.27, 1.49 and 1.37 respectively, which show these three groups’ scores are close to the respective means with little difference.

Table 2. Statistical description of the 30 students’ listening comprehension test scores

<table>
<thead>
<tr>
<th>Student No.</th>
<th>Level H Group</th>
<th>Scores</th>
<th>Student No.</th>
<th>Level I Group</th>
<th>Scores</th>
<th>Student No.</th>
<th>Level L Group</th>
<th>Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>02</td>
<td>26.00</td>
<td></td>
<td>05</td>
<td>23.00</td>
<td></td>
<td>06</td>
<td>17.00</td>
<td></td>
</tr>
<tr>
<td>07</td>
<td>24.00</td>
<td></td>
<td>17</td>
<td>19.00</td>
<td></td>
<td>12</td>
<td>16.00</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>25.00</td>
<td></td>
<td>23</td>
<td>20.00</td>
<td></td>
<td>28</td>
<td>14.00</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>27.00</td>
<td></td>
<td>32</td>
<td>21.00</td>
<td></td>
<td>36</td>
<td>15.00</td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>24.00</td>
<td></td>
<td>39</td>
<td>22.00</td>
<td></td>
<td>45</td>
<td>18.00</td>
<td></td>
</tr>
<tr>
<td>41</td>
<td>26.00</td>
<td></td>
<td>57</td>
<td>23.00</td>
<td></td>
<td>52</td>
<td>14.00</td>
<td></td>
</tr>
<tr>
<td>59</td>
<td>27.00</td>
<td></td>
<td>69</td>
<td>19.00</td>
<td></td>
<td>58</td>
<td>15.00</td>
<td></td>
</tr>
<tr>
<td>65</td>
<td>25.00</td>
<td></td>
<td>74</td>
<td>22.00</td>
<td></td>
<td>71</td>
<td>17.00</td>
<td></td>
</tr>
<tr>
<td>68</td>
<td>27.00</td>
<td></td>
<td>89</td>
<td>20.00</td>
<td></td>
<td>78</td>
<td>17.00</td>
<td></td>
</tr>
<tr>
<td>84</td>
<td>24.00</td>
<td></td>
<td>97</td>
<td>21.00</td>
<td></td>
<td>85</td>
<td>16.00</td>
<td></td>
</tr>
</tbody>
</table>

Mean | 25.50 | M | 21.00 | M | 15.90 |
SD   | 1.27  | SD | 1.49  | SD | 1.37  |
Overall | M= 20.80 | SD= 1.38 |

Note: No.= Number M=mean SD=Standard Deviation

The data in Table 2 demonstrates that the performance of the 30 students from the three different levels is of great difference. Moreover, the overall mean score of their listening comprehension test is 20.80, and by calculation, we can find that students only get 69.33% of the total score, which indicates the 30 students’ poor performance in the listening test as the percentage is only 9.33% higher than the passing percentage 60%. As mentioned in section 2.1.1, listening comprehension itself is a complex activity and has its specific characteristics. Combining with the students’ performance, we can infer that the situation of the students’ listening comprehension is far from satisfactory. Nevertheless, listening comprehension plays an important role in the TEM-4 (see section 2.1.2), so it is necessary and urgent for students to pay more attention to enhancing their listening comprehension abilities, not only to pass the TEM-4 with high scores but also to perform well in real life communication with native English speakers. To sum up briefly, the data in Table 2 gives us a clear view of the
respective situation of the three groups’ performance in the test, and the overall situation of all 30 students’ performance as well. In the following sub-section, the 30 students’ performance in the questionnaire is comprehensively presented.

3.2 Questionnaire

The results from the questionnaire about students’ metacognitive strategy use in the listening comprehension process are presented according to the actual number of students’ responses. The total number of participants is 30. There are three sub-parts in this part. The first sub-part is the analysis and discussion about the overall situation of the application of metacognitive strategies among 30 students. In the second sub-part, there is a comparison of metacognitive strategy use among the students of three levels, and the last sub-part analyzes and discusses the relationship between the students’ metacognitive strategy use and their performance in the listening comprehension test.

3.2.1 The overall situation of the 30 students’ application of metacognitive strategies

The metacognitive strategies questionnaire consists of 15 items on planning strategies with 5 items, monitoring strategies with 6 items, and evaluation strategies with 4 items. After all the data are collected, an analysis and discussion is made to the general situation of the application of metacognitive strategies among the 30 selected students.

According to Oxford (1990), the mean scores of 3.5-5 on the five-point scale are defined as the high level of using strategies, which means frequent use of these strategies. Mean scores of 2.5-3.4 are defined as the medium level of using these strategies, that is, learners less frequently use the strategies. Mean scores ranging from 1.0-2.4 are defined as the low level of using strategies, which indicates that learners seldom use these strategies. In the following, the results of the three categories of metacognitive strategies are analyzed and discussed respectively.

Firstly, according to O’Malley and Chamot’s (1990) classification, there are five sub-categories in the category of planning strategies and items 1-5 in the questionnaire are designed to measure the students’ employment of planning strategies. Table 3 on the next page is presented to provide a clear view of the 30 students’ application of planning strategies. It can be seen in the table that the mean scores of the 30 subjects’ use of planning strategies
range from 3.50 to 4.73. Based on Oxford’s (1990) definition, all the mean scores of the five items belong to the high level of using planning strategies. The total mean score of planning strategies use is 3.88, which indicates that 30 students frequently employ planning strategies before their listening comprehension process. Among these strategies, students employ advance organization strategies frequently as the mean score (M= 4.73) is only 0.27 difference to the full score 5.00. In addition, the standard deviation of the students’ employment of selective attention strategies and self-management strategies are 0.99 and 0.97 separately, which are higher than their employment of the other three strategies, namely, advance organization strategies (SD= 0.67), organization planning strategies (SD= 0.74) and directed attention strategies (SD= 0.66). This means that the 30 students’ use of selective attention strategies and self-management strategies varies differently as the numbers of their responses fluctuate more widely according to the mean scores than their chosen numbers in the other three strategies.

Table 3. The results of the application of planning strategies

<table>
<thead>
<tr>
<th>Category</th>
<th>Sub-categories</th>
<th>Item</th>
<th>Mean score</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning</td>
<td></td>
<td>1</td>
<td>4.73</td>
<td>0.67</td>
</tr>
<tr>
<td>Strategies</td>
<td></td>
<td>2</td>
<td>3.73</td>
<td>0.74</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3</td>
<td>3.90</td>
<td>0.66</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4</td>
<td>3.90</td>
<td>0.99</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5</td>
<td>3.50</td>
<td>0.97</td>
</tr>
<tr>
<td>Overall Mean</td>
<td></td>
<td></td>
<td>3.88</td>
<td>0.81</td>
</tr>
</tbody>
</table>

Secondly, item 6-11 in the questionnaire are to test the students’ application of the six sub-categories in the category of monitoring strategies. Table 4 on the next page is presented to show the detailed results of students’ application of monitoring strategies. As can be seen from Table 4, the overall mean score of the 30 subjects in using monitoring strategies is 3.39, which means a medium level use of monitoring strategies. We can deduce that the 30 students do employ monitoring strategies during the listening comprehension process, but they do not use these strategies very frequently as the overall mean score 3.39 means “sometimes true of me”. It is noticeable that among these six items, the mean scores of item 7 (M= 3.53) and item 11 (M= 3.57) belong to the high level of using the strategies. In other words, students make use of production monitoring strategies and double-checking monitoring strategies more frequently than the other four strategies in the category of monitoring strategies, which belong
to the medium level of application in the monitoring strategies. With regard to the standard deviation, there is no significant difference between these six sub-categories except the standard deviation of double-checking monitoring strategies which is the highest one (SD=0.94) among the category of monitoring strategies. It indicates that the 30 students apply double-checking monitoring strategies in different degrees. In other words, some students may frequently use double-checking monitoring strategies, whereas some may almost never employ the strategies.

Table 4. The results of the application of monitoring strategies

<table>
<thead>
<tr>
<th>Category</th>
<th>Sub-categories</th>
<th>Item</th>
<th>Mean score</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monitoring</td>
<td>Comprehension monitoring</td>
<td>6</td>
<td>3.43</td>
<td>0.82</td>
</tr>
<tr>
<td></td>
<td>Production monitoring</td>
<td>7</td>
<td>3.53</td>
<td>0.78</td>
</tr>
<tr>
<td></td>
<td>Styling monitoring</td>
<td>8</td>
<td>3.30</td>
<td>0.75</td>
</tr>
<tr>
<td></td>
<td>Strategy monitoring</td>
<td>9</td>
<td>3.37</td>
<td>0.81</td>
</tr>
<tr>
<td></td>
<td>Plan monitoring</td>
<td>10</td>
<td>3.13</td>
<td>0.68</td>
</tr>
<tr>
<td></td>
<td>Double-checking monitoring</td>
<td>11</td>
<td>3.57</td>
<td>0.94</td>
</tr>
<tr>
<td>Overall Mean</td>
<td></td>
<td></td>
<td>3.39</td>
<td>0.86</td>
</tr>
</tbody>
</table>

Thirdly, the results of the application of evaluation strategies among the 30 students are shown in Table 5 to provide a clear view of the analysis.

Table 5. The results of the application of evaluation strategies

<table>
<thead>
<tr>
<th>Category</th>
<th>Sub-categories</th>
<th>Item</th>
<th>Mean score</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluation</td>
<td>Production evaluation</td>
<td>12</td>
<td>3.23</td>
<td>0.73</td>
</tr>
<tr>
<td></td>
<td>Performance &amp; ability evaluation</td>
<td>13</td>
<td>2.97</td>
<td>0.81</td>
</tr>
<tr>
<td></td>
<td>Strategy evaluation</td>
<td>14</td>
<td>2.90</td>
<td>0.76</td>
</tr>
<tr>
<td></td>
<td>Language repertoire evaluation</td>
<td>15</td>
<td>2.63</td>
<td>0.76</td>
</tr>
<tr>
<td>Overall Mean</td>
<td></td>
<td></td>
<td>2.93</td>
<td>0.77</td>
</tr>
</tbody>
</table>

There are four sub-categories in the category of evaluation strategies. The mean scores of evaluation strategies are shown in Table 5, which presents the four mean scores falling in the
range from 2.63 to 3.23 with a total mean score being 2.93. The data demonstrates that students use evaluation strategies less frequently, especially language repertoire evaluation strategies as the mean score (M= 2.63) is the lowest one among these sub-categories, and the total mean score (M= 2.93) of evaluation strategies employment belongs to the medium level. There is no obvious distinctiveness between the standard deviations of the four sub-categories as they are all in the normal range, so there is nothing special to analyze.

To sum up, with the overall mean scores of the three categories being shown, Table 6 is used to summarize the overall situation of the 30 students’ application of metacognitive strategies in the process of listening comprehension.

Table 6. Overall mean scores of the application of metacognitive strategies

<table>
<thead>
<tr>
<th>Category</th>
<th>Items</th>
<th>Mean score</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning strategies</td>
<td>Item 1-5</td>
<td>3.88</td>
<td>0.32</td>
</tr>
<tr>
<td>Monitoring strategies</td>
<td>Item 6-11</td>
<td>3.39</td>
<td>0.16</td>
</tr>
<tr>
<td>Evaluation strategies</td>
<td>Item 12-15</td>
<td>2.93</td>
<td>0.27</td>
</tr>
<tr>
<td>Overall Mean</td>
<td></td>
<td>3.40</td>
<td>0.25</td>
</tr>
</tbody>
</table>

As for the use of three categories of metacognitive strategies in listening comprehension, the overall mean score is 3.40 as shown in Table 6, which means that students use all these strategies in the medium level, that is, they sometimes apply metacognitive strategies. Among the three categories, the use of planning strategies (M= 3.88) falls into the high level, and the use of monitoring strategies (M= 3.39) and evaluation strategies (M= 2.93) belong to the medium level. In other words, planning strategies are the most frequently used strategies, followed by monitoring strategies, and evaluation strategies are the least used ones. As to the standard deviations, they all fall into the normal range, and therefore, there is nothing specific among the three categories.

All in all, the analysis and discussion in this sub-part explicates the general situation of the 30 participants’ application of metacognitive strategies. Metacognitive strategies are a set of strategies and in reference to section 2.3.2, Liu (2007) has mentioned that all the components of metacognitive strategies, not only the three categories but also their sub-categories are independent. Therefore, from the analysis, we can see that the 30 students independently use the three categories and all the sub-categories in different levels. To summarize briefly, as one
kind of learning strategies, metacognitive strategies are used in the medium level in the 
listening comprehension process by the 30 students from English major, which indicates that 
the students can still endeavour to use metacognitive strategies more frequently to reach the 
high level. As many researchers, such as Anderson (1990), Coskun (2010) and Goh (2000), 
have proved the importance of metacognitive strategies in enhancing students’ listening 
comprehension proficiency, it is practical for students to make more efforts to gain the 
knowledge of metacognitive strategies and to use these strategies as often as possible.

3.2.2 Comparison of metacognitive strategy use among the three levels

In this part, the analysis and discussion are focused on the comparison between students from 
the three different levels and the relevant data are presented in Table 7.

Table 7. Comparison of three categories among the three level groups

<table>
<thead>
<tr>
<th>Strategies</th>
<th>Level H Group</th>
<th>Level I group</th>
<th>Level L group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning</td>
<td>4.36</td>
<td>3.90</td>
<td>3.38</td>
</tr>
<tr>
<td>Monitoring</td>
<td>3.83</td>
<td>3.43</td>
<td>2.86</td>
</tr>
<tr>
<td>Evaluation</td>
<td>3.15</td>
<td>3.03</td>
<td>2.63</td>
</tr>
<tr>
<td>Mean score</td>
<td>3.78</td>
<td>3.45</td>
<td>2.96</td>
</tr>
<tr>
<td>Std deviation</td>
<td>0.61</td>
<td>0.44</td>
<td>0.38</td>
</tr>
</tbody>
</table>

We can see in Table 7 that among the three categories, the 10 students in the Level H group 
use planning strategies most frequently as the mean score (M= 4.36) shows that the students 
are of the high level use of planning strategies, followed by monitoring strategies. The 
application of monitoring strategies also belongs to the high level with the mean score being 
3.83. Among the 10 students in the Level H group, evaluation strategies are the least 
frequently used as the mean score (M= 3.15) fall into the medium level of use. On the whole, 
the total mean score (M= 3.78) of the Level H group belongs to the high level of using 
metacognitive strategies. With reference to the standard deviation, the one of the Level H 
(SD= 0.61) is the highest among the three groups, which indicates the mean scores (M= 4.36, 
3.83 and 3.15) of the three categories in the Level H group fluctuate most widely when 
compared to the overall mean score (M= 3.78).

As to the Level I group, students use planning strategies most often as the mean score (M= 
3.90) shows that they are of high level of use. Their use of monitoring strategies and
evaluation strategies belongs to the medium level as the mean scores (M= 3.43 and 3.03 respectively) indicate. Generally, the students of the Level I group use metacognitive strategies less frequently than those in the Level H group with the total mean score being 3.45 falling to the medium level. As to the standard deviation of this group, it is 0.44, which is lower than the one of the Level H group and shows that the mean scores (M= 3.90, 3.43 and 3.03) of the three categories are less widely distributed based on the overall mean score (M= 3.45) than the Level H group.

Students in the Level L group use planning strategies most frequently, followed by evaluation strategies, and evaluation strategies are the least frequently used. It can be demonstrated by the mean scores. The mean score of planning strategies is 3.38, monitoring strategies 2.86 and evaluation 2.63 that they all fall into the medium level. By calculation, the students in the Level L group use metacognitive strategies in the medium level as the total mean score is 2.96. Based on the standard deviation (SD= 0.38), it shows that the means scores (M= 3.38, 2.86 and 2.63) of the three categories are the least widely distributed according to the overall mean score (M= 2.96) in these three groups.

From the data provided in Table 7 and the above analysis, we can find that the differences in metacognitive strategy use among three groups are apparent. It is clear that among the three groups, the Level H group uses all the three categories of metacognitive strategies most frequently, followed by the Level I group and the Level L group comes last. Based on Oxford’s (1990) classification, the total mean score (M= 3.78) of the Level H group manifests that students “usually, always or almost always” use metacognitive strategies. The total mean score (M=3.45) of the Level I group shows that the students utilize metacognitive strategies in the medium level, and the total mean score (M= 2.96) also shows that the students of the Level L group use metacognitive strategies in the medium level. However, by comparison, we can see through the mean scores that students in the Level I group make use of more metacognitive strategies than the students in the Level L group.

To sum up briefly, based on the data collected from the questionnaire, we can see on the whole that students in the Level H group use metacognitive strategies in listening comprehension most frequently; the students in the Level I group use them less frequently than the ones in the Level H group, and metacognitive strategies are least used by the 10 students in the Level L group. By comparison of the data, we can clearly find that there is a
significant difference between the Level H group and the other two groups as the mean scores display that the use of metacognitive strategies among the students in the Level H group falls into the high level, while the use of metacognitive strategies among the students from the other two groups belongs to the medium level. These results are in accordance with Yu, Wang and Li’s (2003) results as they demonstrate that the students with a high score in the test have a better sense of using metacognitive strategies and they utilize metacognitive strategies more frequently than the students with a low score as well. Therefore, based on the results, we can advise that students with low scores should be trained to develop a sense of metacognition or using metacognitive strategies in listening or language learning processes.

3.2.3 Relationships between students’ metacognitive strategy use and their listening comprehension performance

Through the analysis and discussion of the results of the test and questionnaire, we can infer that there is a relationship between their metacognitive strategy use and their scores. The 30 students’ scores of the listening comprehension test are shown in Table 2 in section 3.1. From Table 2, it is distinct that students in the Level H group get the highest mean score, 25.50, and the mean scores of the Level I group and the Level L group are 21.00 and 15.90 respectively. Table 7 in section 3.2.2 shows that the students in the Level H group use metacognitive strategies most frequently, followed by the Level I group, and the Level L group applies metacognitive strategies least frequently.

Based on the analysis and discussion of the 30 students’ scores of the listening comprehension test and the frequencies of their metacognitive strategy use, we can clearly see on the whole that the students with higher scores use metacognitive strategies more frequently than the students with lower scores. In other words, we can infer that there is a positive relationship between students’ metacognitive strategy use and their performance in the listening comprehension test which proves that the researcher’s hypothesis is correct. In addition, the result of this investigation is in accordance with the results of O’Malley and Chamot (1990), Yu, Wang and Li (2003) and Vandergrift (1999) in their studies as they demonstrate that there is a positive connection between students’ use of metacognitive strategies and their performance (see section 2.4). From this result, we can see that it is often the case that students who got a higher score in tests have the awareness of using more metacognitive strategies. As Vandergrift (1999) clearly points out, good listeners apply more metacognitive strategies to assist their listening by using different sub-strategies to copy with different
listening comprehension tasks, which also demonstrates the positive connection between students’ use of metacognitive strategies and their performance in the tests. As the positive connection between students’ application of metacognitive strategies and their performance in the listening comprehension test has demonstrated, it is a good suggestion that all the students, especially the students in the Level I group and Level L group, should pay more attention to metacognitive strategies and take advantage of them to deal with their problems in listening comprehension learning, which may directly improve their achievement in tests.

Although on the whole, there is a positive relationship between the 30 students’ employment of metacognitive strategies and their scores in the listening comprehension test, we can see through the data that there are some students whose frequencies of metacognitive strategy use and scores in the listening comprehension test show a negative connection. That is, some students with high scores use metacognitive strategies less frequently or some students with low scores use metacognitive strategies more frequently. In order to find out the students who differ from the rest, the 30 students’ frequencies of metacognitive strategies are calculated individually and carefully. The following Table 8 presents us with the detailed information.

<table>
<thead>
<tr>
<th>Student No.</th>
<th>Level H Group Mean score</th>
<th>Student No.</th>
<th>Level I Group Mean score</th>
<th>Student No.</th>
<th>Level L Group Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>02</td>
<td>3.87</td>
<td>05</td>
<td>3.53</td>
<td>06</td>
<td>3.40</td>
</tr>
<tr>
<td>07</td>
<td>3.67</td>
<td>17</td>
<td>3.47</td>
<td>12</td>
<td>3.33</td>
</tr>
<tr>
<td>13</td>
<td>3.73</td>
<td>23</td>
<td>3.60</td>
<td>28</td>
<td>2.93</td>
</tr>
<tr>
<td>20</td>
<td>3.67</td>
<td>32</td>
<td>3.93</td>
<td>36</td>
<td>2.73</td>
</tr>
<tr>
<td>35</td>
<td>3.47</td>
<td>39</td>
<td>3.13</td>
<td>45</td>
<td>3.73</td>
</tr>
<tr>
<td>41</td>
<td>3.70</td>
<td>57</td>
<td>3.20</td>
<td>52</td>
<td>2.87</td>
</tr>
<tr>
<td>59</td>
<td>4.00</td>
<td>69</td>
<td>3.07</td>
<td>58</td>
<td>2.87</td>
</tr>
<tr>
<td>65</td>
<td>3.60</td>
<td>74</td>
<td>3.27</td>
<td>71</td>
<td>2.67</td>
</tr>
<tr>
<td>68</td>
<td>4.03</td>
<td>89</td>
<td>3.93</td>
<td>78</td>
<td>2.50</td>
</tr>
<tr>
<td>84</td>
<td>4.13</td>
<td>97</td>
<td>3.60</td>
<td>85</td>
<td>2.93</td>
</tr>
<tr>
<td>Overall Mean</td>
<td>3.78</td>
<td></td>
<td>3.45</td>
<td></td>
<td>2.96</td>
</tr>
</tbody>
</table>
We can see from Table 8 that the individual mean scores of the three groups differ variously. In the Level H group, the mean scores of the students’ metacognitive strategy use range from 3.47 to 4.13. Generally, the frequencies of the 10 students’ metacognitive strategy use belong to the high level except for Student 35 whose mean score (M= 3.47) of metacognitive strategy use falls into the medium level. Among the 10 students in the Level I group, their individual mean scores range from 3.13 to 3.93. On the whole, the majority of these students’ mean scores indicate the medium level of use apart from Student 32 and student 89. Both Student 32's and student 89's mean scores are 3.93, which indicate a high level of metacognitive strategy use. As to the students in the Level L group, their mean scores of metacognitive strategy use generally belong to the medium level with the individual’s mean scores ranging from 2.50 to 3.73. However, Student 45 is an exception as his mean score (M= 3.73) falls into the high level. In summary, Table 8 provides us a general situation of the individual mean scores of metacognitive strategies among the 30 students, and it shows us some exceptions as well.

As a result, there is a total of 4 students whose frequency of metacognitive strategy use and scores in the listening comprehension test show a negative connection. The detailed information of their performance in the listening comprehension test and their frequencies of metacognitive strategy use is elaborated in the following.

Among the 4 students, one is from the Level H group; two are from the Level I group, and the remaining one is from the Level L group. To make the result and analysis clear, Table 9 below is utilized to show their exact frequency in applying metacognitive strategies during the listening comprehension process.

Table 9. Information of the four students’ metacognitive strategy use

<table>
<thead>
<tr>
<th>Group</th>
<th>Student No.</th>
<th>Mean score of metacognitive strategies use</th>
<th>Std deviation of metacognitive strategies</th>
<th>Overall mean score of the group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level H group</td>
<td>35 (A)</td>
<td>3.47</td>
<td>0.74</td>
<td>3.78</td>
</tr>
<tr>
<td>Level I group</td>
<td>32 (B)</td>
<td>3.93</td>
<td>0.71</td>
<td>3.47</td>
</tr>
<tr>
<td></td>
<td>89 (C)</td>
<td>3.93</td>
<td>0.80</td>
<td>3.47</td>
</tr>
<tr>
<td>Level L group</td>
<td>45 (D)</td>
<td>3.73</td>
<td>0.70</td>
<td>2.96</td>
</tr>
</tbody>
</table>
For convenience, the four students with the student number 35, 89, 32 and 45 are marked with A, B, C and D respectively. Student A is from the Level H group with the mean score of metacognitive strategy use being 3.47 which belongs to the medium level; however, the overall mean score of the Level H group is 3.78 falling into the high level of metacognitive strategy use. Both student B and C are from the Level I group with the same mean score being 3.93. In the Level I group, the total mean score of the frequency of metacognitive strategy use is 3.47 which belongs to the medium level, whereas both student B's and student C's mean scores belong to the high level. Student D's mean score (M=3.73) indicates that he uses metacognitive strategies in the high level. However, he is from the Level L group and the mean score (M= 2.96) of this group belongs to the medium level. Therefore, student D is an exception as well. As to the standard deviations in this table, they are all within the normal range, and thus, there is no special one which needs explanation.

In general, student A who got a higher score in the test uses metacognitive strategies less frequently than the students in her group and students B, C and D who got lower scores apply metacognitive strategies more frequently than the students in their groups, which distinctly show that there is a negative relationship between the frequency of their metacognitive strategy use and their scores in the listening comprehension test. We are curious to find out the reasons to account for this situation. Therefore, an interview was conducted among these four students to find the possible reasons.

### 3.3 Interview

Through a video conference software named QQ, the four students (student A, B, C and D) were individually asked to answer the same two questions shown in section 1.2.4. The contents of the interview are summarized and analyzed below.

For the first question, student A replies that her main problem is that she cannot keep to using the strategies. Before listening, she will usually decide to apply some specific sub-strategies of metacognitive strategies in order to get correct answers or get high scores. However, the case is that she usually abandons them halfway in the real listening comprehension process. For example, when she applies the organization planning strategies (item 2 in the questionnaire), she always or almost always decides which plan or strategy to use to get the correct answer in advance before the listening. However, in a real situation, when she cannot
catch a phrase or a sentence while listening to the contents, she will give up her original plan or strategy and adopt a new way to help herself get the correct answers. As she has a good ability in listening comprehension, she can get a relatively high score in the listening comprehension test than the students in the other two groups. In general, student A has problems in using metacognitive strategies in listening comprehension processes.

Students B, C and D talk about their problems both in the listening comprehension process and in the metacognitive strategy use, so there are some similarities. Therefore, the contents of the interviews among these three students are summarized in the following:

1) They often pay more attention to the application of metacognitive strategies which leads to their excessive reliance on the strategies with the result that they overlook the requirements of listening comprehension tasks.
2) Sometimes they cannot adopt the certain strategies timely to solve the listening problems they meet in the listening comprehension process.
3) They find it is hard for them to find the exact points of the listening comprehension contents to answer the questions as their ability of understanding the listening comprehension contents is of low level, and listening comprehension itself is a complex process which makes them confused while listening.
4) They sometimes give up listening to the contents midway when they meet some seemingly insolvable problems of language repertoire while listening and just guess the answers in the listening comprehension test.

As can be seen among the four students, they have different problems either in dealing with the listening comprehension tasks or in the application of metacognitive strategies, which can be used to interpret why there is a negative relationship between their frequencies of metacognitive strategy use and their scores in the listening comprehension test.

The four interviewees set forth their views about the second question. Student A suggests that if it is proved that metacognitive strategies are beneficial to improve her listening proficiency or help her solve the listening problems while listening, teachers should teach the knowledge of metacognitive strategies in class. Student B, C and D reply that they have been aware of adopting learning strategies, especially metacognitive strategies to help them answer different types of questions in listening comprehension tests, but they find it hard to practice in real
cases due to their poor listening abilities. If teachers introduce some related knowledge about metacognitive strategies and focus on training them to use these strategies in different types of listening comprehension questions, it will be possible and easy for them to get the correct answers or get a high score in the tests. It seems that the four interviewees all have a positive attitude towards teaching related knowledge of metacognitive strategies in the classroom. From students’ answers to this question, we can infer that teachers do not pay much attention to teaching metacognitive strategies formally in listening classes as students have different problems in how to use metacognitive strategies properly.

To summarize the results of the interview shortly, the four students all approve and have realized the contribution of metacognitive strategies. However, they have difficulties in applying metacognitive strategies or solving listening comprehension tasks. Therefore, they all hope to be taught with the knowledge of metacognitive strategies in listening classes if it is possible. As mentioned in section 2.3.3, metacognitive strategies can provide students with an efficient, effective and systematic way to enhance their learning performance (Hamzah & Abdullah, 2009) and the positive relationship between students’ metacognitive strategy use and their listening comprehension performance is proved. Therefore, it is necessary for teachers to teach metacognitive strategies in listening classes. Moreover, it is also necessary for students to rely on more learning strategies, especially metacognitive strategies, to help them handle the difficulties they meet in listening comprehension tasks, especially metacognitive strategies, to help them handle the difficulties they meet in listening comprehension tasks for the purpose of achieving a better performance. According to the four students’ answers, if they can master sufficient knowledge of metacognitive strategies and use these strategies appropriately, they may perform well in listening comprehension learning. Therefore, the introduction of metacognitive strategies into listening classes may offer many advantages not only for listening comprehension learning but also for SL/FL acquisition. Some suggestions are provided for listening comprehension teaching and learning in the following.

3.4 Suggestions for listening comprehension teaching and learning

Students of English major have learned English for approximately eight years. However, their performance in the listening comprehension test is not very well, which may indirectly impede their mastery of English. In addition, their employment of metacognitive strategies is only of the medium level and sometimes they cannot find proper strategies to help their listening comprehension learning. According to this study, there is a positive relationship
between students’ frequencies of metacognitive strategy use and their listening comprehension performance. Thus, based on the information from the test, the questionnaire and the interview together with the analysis and discussion, some advice can be concluded.

Firstly, O’Malley and Chamot (1990) have proved the essentiality for teachers to teach metacognitive strategies in the classroom. Therefore, it is advisable that in the listening classes, teachers should formally instruct the knowledge of metacognitive strategies integrating with the knowledge of listening comprehension. Since there is a positive relationship between students’ use of metacognitive strategies and their listening comprehension performance, it is necessary to integrate metacognitive strategies into the regular listening classes. Thus, to enhance the students’ listening ability, teachers can try to help students cultivate a sense of using more metacognitive strategies during listening comprehension processes with the teaching method proposed by Yang (2007). That is, teachers can divide the listening class into pre-listening stage, while-listening stage and post-listening stage. Connecting metacognitive strategies with these stages, teachers can train and develop students’ sense of planning in the pre-listening stage, monitoring in the while-listening stage and evaluating in the post-listening stage. Students can develop the awareness of using metacognitive strategies in this way. Moreover, they are encouraged to apply metacognitive strategies to their listening comprehension to a high degree.

Secondly, different teaching methods or materials may be adopted if teachers take notice of the different problems which influence students listening comprehension performance. From the interview, we draw conclusions that in spite of the high scores they get in the listening comprehension test, some students fail to find out the proper metacognitive strategies to facilitate their listening process. There is another case in which students fail to get high scores even though they use metacognitive strategies frequently. Therefore, these differences should be taken into consideration when choosing the listening teaching methods as in some methods metacognitives strategies are mainly focused, whereas in some methods, the contents of the listening comprehension are mainly concerned. Teachers should realize that listening comprehension teaching is not a routine of listening to the contents and checking the answers. As to the listening teaching materials, they should also be carefully selected in order to assist teachers' teaching.
Thirdly, it is necessary for learners to flexibly acquire the detailed knowledge of metacognitive strategies and listening comprehension. Although some students have realized the importance of using metacognitive strategies in listening comprehension, they feel that it is hard to practice them in real situations. Seeing some frustrated learners spend much time in listening comprehension, while achieving little, the first step is to change their traditional approach to listening comprehension learning. Listening comprehension is not a simple process in which listeners repeat listening, but a complex process in which listeners can adopt strategies to guide their listening. Thus, students should actively adjust their learning strategies and be willing to receive a comprehensive understanding of the concept of listening comprehension and metacognitive strategies aiming to find suitable ways to listening and proper methods to using reasonable metacognitive strategies.

### 3.5 Limitations of this study

Although the investigation has proved the researcher’s hypothesis is correct and the importance of metacognitive strategies in listening comprehension, there are several limitations in this study which cannot be ignored.

Firstly, the number of students from the three different levels in this study is small. There are 10 students in each level with a total number of 30, which is not enough in order to achieve objective and precise results. Besides, it is not appropriate enough to group students into higher level, intermediate level and lower level only based on their scores on one listening comprehension test.

Secondly, the limitation is related to the listening comprehension test and the questionnaire adopted in this study. The listening comprehension test is merely made of 30 multiple-choice questions. Thus, students may guess the correct answers, which may affect the results of the scores of the listening comprehension test. As to the questionnaire, it is designed in Chinese and then translated into English. In this study, the Chinese version is used among the Chinese participants in order to elicit accurate data. Thus, some expressions related to the language may be ambiguous. Besides, the questionnaire is the main method used in this study to investigate students’ frequencies of metacognitive strategy use, which is not enough to ensure the comprehensiveness of the results. It seems unavoidable that students’ subjective factors
(i.e., their motivation, personality and emotions) may influence their choices when they do the questionnaire. All these limitations mentioned here may cause an inaccuracy in the data.

Thirdly, the data collected from the listening comprehension test and the questionnaire are rounded-off and kept to two decimal points for ease of calculation, which indirectly and slightly affect the accuracy of the results. All in all, more attention should be paid and efforts should be made to get accurate and authentic results of the study.

4. Summary and conclusion

Metacognitive strategies are of great importance for learners’ successful learning in SL/FL acquisition and listening comprehension is of great significance not only in SL/FL learning but also in people’s daily communication. Thus, the present study is to investigate the frequency of metacognitive strategy used by English majors in three level groups in their listening comprehension process, to find out the relationship between their metacognitive strategy use and their listening comprehension performance, and to put forward some recommendations for listening comprehension learning and teaching. The detailed data and information collected from the listening comprehension test, the questionnaire and the interview is presented and elaborated in this study.

Through a detailed analysis and discussion, the investigation finds that the general situation of the students’ performance in the listening comprehension test is far from satisfactory, which demonstrates that English majors need pay more attention to listening comprehension learning. Within the three different levels (the higher level, the intermediate level and the lower level), the students’ performance varies widely in the listening comprehension test. On the whole, the 30 English majors use metacognitive strategies in the medium level with planning strategies being used most frequently, then come monitoring strategies, whereas evaluation strategies are the least frequently used in the listening comprehension process. By comparison, it is found that the 10 students in the Level H group employ metacognitive strategies the most frequently and their frequency of metacognitive strategy use belongs to a high level, whereas the 10 students in the Level I group use them less frequently than the Level H group and the 10 students in the Level L group make use of them the least frequently. For the students in both the Level I group and the Level L group, their frequency of metacognitive strategy use falls into the medium level. Having connected the students’
performance in the listening comprehension test with their frequency of metacognitive strategy use, this study demonstrates that there is a positive relationship between students’ metacognitive strategy use and their performance in the listening comprehension test. In other words, it means that students, who perform well in the listening comprehension test, use metacognitive strategies more frequently. However, there are 4 students whose frequencies of metacognitive strategy use and scores in the listening comprehension test show a negative relationship, and therefore an interview was conducted to investigate the reasons. Based on the contents of the interview, it shows that the students have different problems in using metacognitive strategies or dealing with the listening comprehension tasks.

Therefore, some suggestions can be brought forward based on the findings and discussion. We can suggest that teachers should instruct the knowledge of metacognitive strategies in listening classes and choose different but suitable teaching methods and materials for different teaching purposes. In addition, we recommend that students should actively adjust their learning strategies and willingly receive the concept of listening comprehension and metacognitive strategies in classes.

All in all, although there are several limitations of this study, this investigation has proved a positive relationship between the students’ metacognitive strategy use and their performance in the listening comprehension test. Thus, listening comprehension and metacognitive strategies, as important parts in SL/FL acquisition and teaching, can be further studied to improve English majors’ listening proficiency and help teachers enhance pedagogical qualities.
References


Appendix I

A listening comprehension test for English Major

Name: Class: Score:

Directions: In Sections A, B and C you will hear everything ONCE ONLY. Listen carefully and then answer the questions that follow. Write the correct answer in front of the question number.

SECTION A CONVERSATIONS

In this section you will hear several conversations. Listen to the conversations carefully and then answer the questions that follow.

Questions 1 to 3 are based on the following conversation. At the end of the conversation, you will be given 15 seconds to answer the questions. Now, listen to the conversation.

1. The following details have been checked during the conversation EXCEPT
   A. number of travelers. B. number of tour days.
   C. flight details. D. room services.
2. What is included in the price?
   A. Air tickets and local transport.
   B. Local transport and meals.
   C. Air tickets, local transport and breakfast.
   D. Air tickets, local transport and all meals.
3. Which of the following statements is CORRECT?
   A. The traveler is reluctant to buy travel insurance.
   B. The traveler is ready to buy travel insurance.
   C. The traveler doesn't have to buy travel insurance.
   D. Travel insurance is not mentioned in the conversation.

Questions 4 to 7 are based on the following conversation. At the end of the conversation, you will be given 20 seconds to answer the questions. Now, listen to the conversation.

4. Which of the following details is CORRECT?
   A. Mark knows the exact number of airport buses.
   B. Mark knows the exact number of delegates' spouse.
   C. Mark doesn't know the exact number of delegates yet.
D. Mark doesn't know the number of guest speakers.

5. What does Linda want to know?
   A. The arrival time of guest speakers.  B. The departure time of guest speakers.
   C. The type of transport for guest speakers.  D. The number of guest speakers.

6. How many performances have been planned for the conference?

7. Who will pay for the piano performance?
   A. Pan-Pacific Tours.  B. Johnson & Sons Events.

Questions 8 to 10 are based on the following conversation. At the end of the conversation, you will be given 15 seconds to answer the questions. Now, listen to the conversation.

8. What is NOT missing in Mary's briefcase?
   A. Her cheque book.  B. Her papers for work.

9. Where was Mary the whole morning?
   A. At the police station.  B. At a meeting.
   C. In her client's office.  D. In the restaurant.

10. Why was Mary sure that the briefcase was hers in the end?
    A. The papers inside had the company's name.
    B. The briefcase was found in the restaurant.
    C. The restaurant manager telephoned James.
    D. The cheque book inside bore her name.

SECTION B  PASSAGES

In this section, you will hear several passages. Listen to the passages carefully and then answer the questions that follow.

Questions 11 to 13 are based on the following passage. At the end of the passage, you will be given 15 seconds to answer the questions. Now, listen to the passage.

11. We learn from the passage that about two-thirds of the courses are taught through
    A. the School of Design and Visual Arts  B. the School of Social Work.
    C. the School of Business.  D. the Arts and Sciences program.

12. What is the cost of undergraduate tuition?
A. Twenty thousand dollars.  
B. Thirty thousand dollars.  
C. Twenty-seven thousand dollars.  
D. Thirty-eight thousand dollars.

13. International students can receive all the following types of financial assistance EXCEPT
   A. federal loans.  
   B. private loans.  
   C. scholarships.  
   D. monthly payment plans.

Questions 14 to 17 are based on the following passage. At the end of the passage, you will be given 20 seconds to answer the questions. Now, listen to the passage.

14. According to the passage, mothers in ___ spend more time looking after children.
   A. France  
   B. America  
   C. Denmark  
   D. Australia

15. Which of the following activities would Australian fathers traditionally participate in?
   A. Feeding and playing with children.  
   B. Feeding and bathing children.  
   C. Taking children to the park and to school.  
   D. Taking children to watch sports events.

16. According to the study, the "new man" likes to
   A. spend more time at work.  
   B. spend more time with children.  
   C. spend time drinking after work.  
   D. spend time on his computer.

17. It is suggested in the passage that the "new man" might be less acceptable in
   A. France.  
   B. Britain.  
   C. Australia.  
   D. Denmark.

Questions 18 to 20 are based on the following passage. At the end of the passage, you will be given 15 seconds to answer the questions. Now, listen to the passage.

18. The services of the new partnership are provided mainly to
   A. mothers of infected babies.  
   B. infected children and women.  
   C. infected children in cities.  
   D. infected women in cities.

19. Which of the following details about Family Health International is INCORRECT?
   A. It is a nonprofit organization.  
   B. It provides public health services.  
   C. It carries out research on public health.  
   D. It has worked in five countries till now.

20. The example of Cambodia mainly shows
   A. the importance of government support.  
   B. the importance of public education efforts.
C. the progress the country has made so far.
D. the methods used to fight AIDS.

SECTION C NEWS BROADCAST

In this section, you will hear several news items. Listen to them carefully and then answer the questions that follow.

Questions 21 and 22 are based on the following news. At the end of the news item, you will be given 10 seconds to answer the questions. Now, listen to the news.

21. According to the news, the victim was
   A. a 17-year-old girl.       B. a 15-year-old boy.

22. We learn from the news that the suspects were arrested
   A. one month later.  B. two months later.  C. immediately.  D. two weeks later.

Questions 23 and 24 are based on the following news. At the end of the news item, you will be given 10 seconds to answer the questions. Now, listen to the news.

23. The Iraqi parliament can vote on the security agreement only after
   A. all parties have agreed on it.       B. the US troops have pulled out.
   C. the Cabinet has reviewed it.       D. the lawmakers have returned from Mecca.

24. According to the news, the US troops are expected to completely pull out by

Questions 25 and 26 are based on the following news. At the end of the news item, you will be given 10 seconds to answer the questions. Now, listen to the news.

25. The following are involved in the operations to rescue the children in Honduras EXCEPT
   A. the police.       B. the district attorney.
   C. the prison authorities.       D. Institute of Childhood and Family.

26. What punishment would parents face if they allowed their children to beg?
   A. To be imprisoned and fined.       B. To have their children taken away.
   C. To be handed over to the authorities.       D. None.

Question 27 is based on the following news. At the end of the news item, you will be given 5 seconds to answer the question. Now, listen to the news.
27. What is the news item about?
   A. Coastlines in Italy.
   B. Public use of the beach.
   C. Swimming and bathing.
   D. Private bathing clubs.

Question 28 is based on the following news. At the end of the news item, you will be given 5 seconds to answer the question. Now, listen to the news.

28. Which of the following is NOT mentioned in the news?
   A. The airport was shut down for Friday.
   B. There was a road accident involving two buses.
   C. Local shops were closed earlier than usual.
   D. Bus service was stopped for Friday.

Questions 29 and 30 are based on the following news. At the end of the news item, you will be given 10 seconds to answer the questions. Now, listen to the news.

29. How many people were rescued from the apartment building?

30. Which of the following details in the news is CORRECT?
   A. The rescue operation involved many people.
   B. The cause of the explosions has been determined.
   C. Rescue efforts were stopped on Thursday.
   D. The explosions didn't destroy the building.

Key to listening comprehension test:
1-10: DDACABDCCD
11-20: DBADDBCBDA
21-30: CBADCABACA
Appendix II

Questionnaire about metacognitive strategies used in listening comprehension

Name: Score of the listening comprehension test:

Thanks for your active participation in this questionnaire about metacognitive strategies used in the listening comprehension process. There are 15 questions in this questionnaire, and for each question, there are five numbers to choose. 1 means “never or almost never true of me”; 2 means “usually not true of me”; 3 means “sometime true of me”; 4 means “usually true of me” and 5 means “always or almost always true of me”. Please read the questions carefully and mark the number with a tick according to your own experience.

1. I will preview the questions to get a clear understanding of the listening task before listening. 1 2 3 4 5
2. I decide which plans or strategies to use to get the correct answer in advance before listening. 1 2 3 4 5
3. I will make clear of the central listening issues and focus my whole attention on them before listening. 1 2 3 4 5
4. I will pay selective attention to particular issues, such as the requirements of the listening task or the given time for answer the questions. 1 2 3 4 5
5. I will adjust my physical condition, such as deep breathing, to help myself focus on what the tape is saying. 1 2 3 4 5
6. I will check and correct my understanding of the listening tasks according to listening input while listening. 1 2 3 4 5
7. I will check whether my choice of the answers is correct while listening. If there are errors, I will correct it immediately. 1 2 3 4 5
8. I will monitor and check my listening process according to my own learning style. For example, when I can’t understand the contents, I will move on to the next part. 1 2 3 4 5
9. I will monitor and check the used strategies while listening and according to the current situation, I will adjust them if they do not work. 1 2 3 4 5
10. I will monitor whether my proposed plans work while listening. 1 2 3 4 5
11. I will be aware of tracking my understanding and my chosen answers based on the previous listening comprehension contents. 1 2 3 4 5
12. I will assess my answers based on the understanding of the listening material after listening. 
1 2 3 4 5

13. I will evaluate my performance and ability in completing the listening task after listening. 
1 2 3 4 5

14. I will assess the strategies used in the listening process after listening. 
1 2 3 4 5

15. I will evaluate how much I have learned about the language repertoire (i.e., words, phrases) appearing in this listening comprehension task after listening. 
1 2 3 4 5

The questionnaire in Chinese:

听力理解中元认知策略使用情况的问卷

姓名: 听力理解测试成绩:

非常感谢你们积极参与回答这份问卷。该问卷旨在听力理解过程中元认知策略的使用情况。一共 15 个小题。每题都有 1，2，3，4，5 五个选项。1 代表这种做法完全或几乎完全不适合我的情况；2 表示这种做法通常不适合我的情况；3 代表这种做法有时适合我的情况；4 表示这种做法通常适合我的情况；5 这种做法完全或几乎完全适合我的情况。请在仔细阅读后根据自身的实际情况作出相应的选择并在相应的数字上打钩。

1. 在听前，我会阅读题目，明确了解听力任务的目的。 
1 2 3 4 5

2. 在听前，我会事先决定用什么计划或策略来听得正确的答案。 
1 2 3 4 5

3. 在听前，我会明确听力重心，集中全部精力去听相关的内容。 
1 2 3 4 5

4. 在听前，我会有选择性的注意某一问题，如题目要求或者答题时间。 
1 2 3 4 5

5. 在听前，我会调整自己生理状况，如深呼吸来帮助自己集中精力去听内容。 
1 2 3 4 5

6. 在听力过程中，我会根据输入的听力内容，检查并改正自己对听力内容的理解。 
1 2 3 4 5

7. 在听力过程中，我会检查所选答案是否正确。如有错误，立即修改。 
1 2 3 4 5

8. 在听力过程中，我会根据自己的学习习惯，监测并检查自己对听力内容解。如，碰到不懂得内容，跳过往下听。 
1 2 3 4 5
9. 在听力过程中，我会监督和检测自己所使用的策略。如果该策略不起作用，我会根据当时的情况，调整策略。

10. 在听力过程中，我会监测自己事先制定好的计划是否有效。

11. 在听力过程中，我会有意识地根据所听到的内容检测自己的理解和自己所选案。

12. 在听后，我会根据自己对听力内容的理解，评估答案。

13. 在听后，我会评估自己在完成听力任务时的表现和能力。

14. 在听后，我会评估自己在听力中所运用的策略。

15. 在听后，我会评估自己对这次听力任务中的语言点的理解，例如，单词和短语。