

# An Empirical study on English Listening Metacognitive Strategies of English Majors in China

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## **Abstract**

*There is increasing research interest in applying metacognitive strategies in English study, which has been illustrated with students positive learning effects. This study explores the relationship between listening comprehension and students' employment of metacognitive listening strategies. Sophomores of English majors from a normal university in China are chosen the subject. It is revealed in the study that metacognitive strategies and listening proficiency are positively correlated with each other. Students with different metacognitive strategies level act differently in their listening comprehension. What's more, students with high listening proficiency tend to use certain category of metacognitive strategies more often than those at low level. Monitoring strategies have certain predictive power over listening proficiency. In response to these findings, implications and limitations of the study are discussed. Hopefully, it will be conducive to current English as Foreign Language Teaching (EFLT) research and practice.*

**Keywords:** Listening comprehension, metacognitive strategies, planning strategies; monitoring strategies; evaluating strategies.

## **1. Research Orientation**

Listening comprehension, as an integrated language skill, plays an indispensable part not only in foreign language acquisition but also in daily communication. However, the listening comprehension of students in China has been relatively poor for the being confined to the classroom practice, lack of the natural and authentic language environment and some misconceptions about the nature of listening. For learners, listening can be a stressful activity because it is transient, and they are often unable to process

quickly enough the information they hear (Goh, 2002). Listening comprehension is considered a headache in language teaching and learning for both teachers and students in China.

Both teachers and students get so used to the traditional way to practice listening in which listeners are treated as passive message receivers instead of active message organizers that the situation in Chinese English listening teaching practice is far from satisfaction, which is in contrast to the nature of listening and contributes to the failure of some listeners. Therefore, Now is the time for both teachers and learners to change their way to instruct and acquire listening. Vandergrift (1997: 389) found that in the field of listening strategy research the knowledge about listening comprehension strategies is comparatively cursory because most language learning strategy research attention has been devoted to reading, writing and speaking. According to Vandergrift (1996), awareness and acquisition of successful learning strategies can help language learners become more autonomous for life-long learning. Listening strategies can help students work with more difficult material (Vandergrift, 1999b). Therefore, What matters to students is not so much about presenting a variety of strategies to students, but their understanding when to apply different strategies, how to integrate among them. In other words, what matters to students is not strategies themselves but metacognition about strategies. Metacognitive strategies play a vital part in the process of learning, since metacognitive strategies involve an recognition of one's mental processes, the ability to monitor how one learns and regulate learning process successfully. Metacognitive strategies have active impact on all kinds of language learning activities (Wenden, 1998). Learners with metacognitive strategies can figure out what they need to do in certain situations. However, the researches on metacognitive strategies are mainly related to general language learning and reading comprehension, which also needs much attention, in the field of listening comprehension.

In view of the important role of metacognitive strategies, the present study is undertaken to understand the nature of English listening comprehension and to identify the relationship between metacognitive strategies and listening proficiency with a view to provide useful direction for further listening teaching so as to improve learners' listening proficiency.

## **2. Literature Review**

Metacognitive strategies, as higher executive skills, are essential for effective language learning. Metacognitive strategies refers to an ability to consciously employ metacognitive knowledge to make a plan and preparation, arrange, monitor, regulate and evaluate the process and situation of learning in accordance. In recent years the researches on metacognitive strategies have gained widespread concern and made breakthrough. Some attach importance to cultivating students' metacognitive awareness. Anderson (2002:7) concludes that "developing learners meta-cognitive awareness may lead to the development of stronger cognitive skills and much deeper processing." Victori & Lockhart (1995: 223) indicates that "Enhancing students' metacognition is one of the premises of any self-directed programme to prepare them for approaching their own learning autonomy." Moreover, the significance of metacognition in learning has been acknowledged. Many studies are conducted to identify whether there are any differences employed by students with different English proficiency. Some researchers have pointed out that good language learners usually share general characteristics, being fully conscious of their learning process, being more flexible, active and thoughtful in the employment of proper learning strategies to fulfill the tasks in different learning

context, which suggests the significance of metacognition, While unsuccessful learners lack certain necessary high-order executive skills named metacognitive strategies (Ellis 1994; Abraham and Vann 1987; O'Malley et al. 1989). According to O'Malley and Chamot, students without metacognitive approaches are essentially learners without direction or opportunity to plan their learning, monitor their progress, or review their accomplishments and future learning directions (O'Malley and Chamot, 1990:8).

A lot of studies have been conducted to illustrate the correlation between metacognitive strategies and language proficiency, especially the proficiency in specific skill areas. For example, Dreyer and Oxford (1996) conclude that 45% of the variance in TOEFL scores is predicted by overall learning strategy score on the SILL, and strong correlation between metacognitive strategies and EFL proficiency exists among 305 Afrikaans-speaking English learners in South Africa. Many studies about metacognitive strategies training has been done to test its effect on foreign language learning, and positive results have been achieved that they are beneficial for language learning, and students from the experimental group perform better in their language learning. ( in South Africa Dreyer & Oxford, 1996; Ji Kangli 2002 and in Turkey, Oxford, Judd, & Giesen, 1998). According to Oxford (1990:135), learning a language is no small task, and metacognitive strategies help learners get control of this task through the functions of centering, arranging, planning, and evaluating. Accordingly, it is natural for metacognition to have a place in the field of listening.

Bacon (1992) illustrate that there is no significant effect on the the application of learning strategies to listening comprehension when English-spaking Spanish students were taken as the subjects. Vandergrift (1999b:168) holds that listening comprehension is anything but a passive activity. It involves a complicated and active process in which different sounds, vocabularies and sentence patterns are to be distinguished, interpreted and retained within the immediate even the larger sociacultural context of the utterance. The active mental activities on the part of listeners are considered necessary to concert these factors. Accordingly, it is necessary for listeners to think about the process of listening instead of just paying attention to the content of listening (Goh, 1997: 361-369). Vandergrift (1999b) points out that as illustrated in research in listening comprehension, inculcation of strategies can prompt students to have a better understanding of the language input they receive, and thus, to improve their listening performance. Another study by Vandergrift (2003a: 489) further confirmed the effect of metacognitive strategies on listening. According to Rost (2002), listeners apply various metacognitive strategies to assist them comprehend. In listening instruction, meatcognitive strategy is important in that then students may make use of such higher order executive skills to monitor, regulate or evaluate listening activity and process. Once listeners have a good command of metacognitive strategies, they are able to assess the situation, to plan, to select appropriate strategies, to concert them, to monitor or assess their success degree, and accordingly to revise the plan and the strategies they employ if necessary. During the process, metacognition-oriented listeners, full conscious of both their own learning style and requirement of task, can associate interrelated information with the process responsible for task fulfillment and collect feedback in the listening process to assess the effectiveness, improve planning and regulate the emphasis of monitoring so as to restore comprehension failures. The improved planning and the shift of monitoring emphasis give rise to improved performance and it is a positive circle. They have a strong sense of the "meaningfulness" of listening, appreciation of value of self-testing, and recognition of the need to vary their strategies depending on their purpose (Gourgey, 1998: 83-84).

Although a few studies have reached out into the listening comprehension, the research of the difference in successful and unsuccessful learners' employment of metacognitive strategies remains to be verified.

### 3. Methodology

The aim of the current study is to investigate patterns and frequency of metacognitive strategies used by English majors learning English as foreign language when they do listening comprehension, to make clear the relationship between metacognitive strategies and listening proficiency, finally to identify if there are significant differences among the three groups in implementing metacognitive strategies in listening comprehension, and what are they?

The research issues the study attempts to explore are:

- 1) At what level the English majors' general metacognitive strategies is in listening comprehension?
- 2) What is the relationship between listening comprehension and metacognitive strategies?
- 3) Are there significant differences between successful and unsuccessful listeners in the use of metacognitive strategies? How do they use three categories of metacognitive strategies differently?
- 4) To what extent do metacognitive strategies predict listening proficiency?

#### 3.1 Subject

The subjects in the present study investigation consist of one hundred and twenty English majors at the second grade in a normal university in China. On account of the objective limitations, the method of a convenience sampling instead of random sampling is adopted to collect samples. Subjects belong to three intact classes, and all of them are second grade English majors. They were believed to have already formed their own style of English study after nearly ten years English study, including their use of learning strategies to improve their language study.

#### 3.2 Instrument

Three instruments are used in the study. They are the metacognitive strategy questionnaire, the subjects' listening scores. Here, the listening scores are from subjects' scores of Test for English Major 4 (TEM4) which is the subjects' proficiency scores. The questionnaire is mainly applied to measure their use of metacognitive strategies in listening comprehension. The questionnaire (Appendix 1) includes two parts. The first part is designed to obtain the personal information of the subjects composed of subject's name, age, and gender. The second part consists of 31 statements used to check subjects' metacognitive strategies level in their listening comprehension. The questionnaire was designed, based on material of Oxford (1990) and Vandergrift (1999) as well as the author's experience as a language learner and teacher.

In designing the questionnaire, the author adopts O'Malley and Chamot's (1990) classification of metacognitive strategy. Some metacognitive strategies are related to planning, for instance, before listening, listeners are ready to pay attention to and concentrate on what they are about to hear, etc.; another 15 statements are concerned with monitoring strategies, for instance, during listening, listeners consciously monitor their comprehension of the material and make evaluation accordingly, etc.; and the rest 9 statements are evaluating strategies. In the questionnaire, the five-point Lickert scale is adopted, and plain English version is used in the questionnaire so that it is easy for English sophomores to comprehend.

### 3.3 Procedures

In this part, the procedures in the study will be discussed, including pilot study, data collection, and data analysis.

#### 3.3.1 Pilot Study

A pilot study was taken beforehand in order to improve the validity of the study. It was done on April 2nd. 20 English sophomores in China West Normal University were given the questionnaire that was analyzed and modified in response to students' reaction.

#### 3.3.2 Data Collection and Data Analysis

The questionnaire was handed out on April 11<sup>th</sup>. The data collection was conducted in regular English class, and they were told that there are no standard answers. Before the survey, the researcher makes some necessary explanations and ensures the students that their personal questionnaire would be kept secret. Altogether 120 copies of the questionnaire were collected, among them 106 are considered valid and 19 are invalid due to their failure to provide complete information.

Since there were no authorities at present, they were ready to fulfill the questionnaire. The questionnaire was fulfilled immediately in class during which the author of this paper answered the subjects' questions, dealt with some difficulties and finally carried out the procedures smoothly.

In the end, reliability assessment of the questionnaire was conducted by means of calculating the item-total correlation. Cronbach's coefficient alpha for the metacognitive strategies questionnaire is .772. This result suggests that the questionnaire is desirably reliable for research in terms of their internal consistency.

For the analysis of the data, the SPSS 14.0 (Statistical Package for the Social Science) is used to analyze the scientific research. The significance level of .05 is used as a standard for all statistical tests. This means that a result was considered statistically significant if it could have occurred by chance fewer than 5 times out of 100. Firstly, subjects are divided into three groups according to their listening scores, by which the successful learners and unsuccessful learners come into being. One-way ANOVA analysis is adopted to check if there are significant differences among the three groups' listening scores. By means of descriptive statistics, frequency and pattern of the subjects' overall metacognitive strategies in listening comprehension are obtained, including calculation of means, standard deviations, at the same time, the three groups' variation in the application of metacognitive strategies is overviewed. Secondly, the correlation analysis is used to analyze the relationship between metacognitive strategies and listening comprehension. Thirdly, One-way ANOVA is adopted to examine if there are significant differences among the three groups' use of metacognitive variables in listening comprehension. Multiple comparisons are employed to analyze the exact variation. Fourthly, we try to make sure if there exists linear relationship between metacognitive strategies and listening comprehension in the light of the method, mean description.

## 4. Results and Discussions

### 4.1 General Metacognitive Level in Listening Comprehension

Firstly, subjects are classified into three groups in terms of their listening scores. The first group with scores ranging from 23 to 30 is regarded as successful listeners. And those with scores ranging from 18 to 21 belong to the second group, while the third group with scores ranging from 0 to 17 is defined as less

successful listeners.

To clarify this problem of whether those subjects having significant differences in their listening scores or not, one-way ANOVA is adopted to measure. The probability (.000) of F-value (181.272) presented in

Table 4.1 indicates that the overall differences in listening scores of the three groups are significant in terms of statistics.

Table 4.1 the one-way ANOVA analysis of listening scores

	S <sup>2</sup>	df	Mean Squires	F	Sig.
Between Groups	1566.389	2	783.194	181.272	.000
Within Groups	423.413	98	4.321		
Total	1989.802	100			

The table 4.2 depicts a clear picture of the frequency and patterns of the three groups in their choice of metacognitive strategies and its variables.

Table 4.2 Overview of the mean and standard deviation of metacognitive strategies

Group Differences		Planning	Monitoring	Evaluating	Total
1	Mean	28.8387	52.4194	25.0000	106.3226
	N	31	31	31	31
	SD	3.08865	3.53812	2.74469	8.19913
2	Mean	27.5789	49.1316	23.7105	100.4211
	N	38	38	38	38
	SD	3.23521	3.86370	2.51383	7.82453
3	Mean	25.8125	48.4375	22.6250	96.8437
	N	32	32	32	32
	SD	2.44207	3.87663	2.36575	6.81133
Total	Mean	27.4059	49.9208	23.7624	101.0990
	N	101	101	101	101
	SD	3.16916	4.10045	2.68756	8.46346

Mean score is the most common measure used to describe the central tendency of a group of data. From the table 4.2, the mean of the total metacognitive strategies is 101.0990, indicating English majors are at the intermediate level in the use of metacognitive strategies in listening comprehension. The general standard deviation is 8.4636 indicating that sharp differences exist in their choice of English majors' metacognitive strategies. More successful listeners tend to employ more metacognitive strategies than less successful listeners do.

Table 4.2 also shows clearly the three groups' general use of the three-subcategories in listening comprehension respectively. First, the successful learners (group 1) have the highest means both for metacognitive strategies and individual metacognitive variables while the less successful learners (group3) have the lowest ones. Namely, the better they do in their listening comprehension, the more frequently they use the three-subcategory strategies. Secondly, the three groups use monitoring strategies (49.9208) more frequently than planning and evaluating strategies. Next, mean of the evaluating strategies are lower than that of the other two strategies. In addition, the standard deviation of evaluating strategies is smaller than that of planning and monitoring strategies, which means English majors' use of the evaluating strategies do not vary sharply compared with the other two strategies. It seems that a conclusion can be drawn now according to the above findings that there does exist relationship between the use of metacognitive strategies and listening proficiency. But some questions occur: Do these differences differ significantly in terms of statistics. To what extent are learners' metacognitive strategies correlated with their listening comprehension? Can we safely conclude that the more frequently learners employ metacognitive strategies, the better they can do in listening comprehension? The following analyses will center on answering these questions.

#### 4.2 The Relationship between Metacognitive Strategies and Listening Comprehension

From the table 4.2, it is known that there are differences concerning the three groups' employment of metacognitive strategies in listening comprehension according to its mean and standard deviation. But the exact relationship between metacognitive strategies and listening comprehension is still not clear, hence to what extent are learners' metacognitive strategies correlated with their listening proficiency? The correlation analysis is adopted to answer this question.

Table 4.3 correlations between listening proficiency and metacognitive strategies

		Listening Proficiency	Metacognitive Strategies	Planning	Monitoring	Evaluating
Listening Proficiency	Pearson Correlation	1	.459(**)	.399(**)	.414(**)	.339(**)
	Sig.	.	.000	.000	.000	.001

\*\* . Correlation is significant at the 0.01 level (2-tailed).

From the table 4.3, it can be concluded that listening proficiency are positively correlated with metacognitive strategies, with the correlation coefficient is .459 at the .000 level. This result indicates that learners' listening proficiency partly depends on their application of metacognitive strategies. The most obvious correlation is the correlation between listening proficiency and metacognitive strategies ( $r = .459$ , at the .000 level), indicating that students' general application of the three categories may affect more on their listening comprehension than any single subcategory. Furthermore, among the three subcategories the monitoring strategies is correlated most significantly with listening proficiency compared with planning and evaluating strategies ( $r = .414$  at the .000 level). The least correlation is the correlation between listening proficiency and evaluating strategies ( $r = .339$ , significance = .001). But the issue whether students with a better command of metaconitive strategies are prone to be more successful in listening comprehension is not resolved. The following analysis is to answer this question.

#### 4.3 Three Groups' Variation in the Employment of Metacognitive Strategies

To answer the above question, the one-way ANOVA analysis is employed to make sure if there are significant differences of the three groups' employment of metacognitive strategies. Table 4.4 on the next page illustrates that significant variation exist in students' application of metacognitive strategies ( $F=12.359$ ,  $p=.000 < .05$ ). The most significant variation lies in their choice of monitoring strategies, with the probability (.000) of F-value (10.111). The less one is the planning strategies ( $F=8.336$ ,  $p=.000$ ). The least variation is their choice of evaluating strategies ( $F=6.885$ ,  $p=.02$ ). This result is also in accordance with the descriptive analysis of the three subcategories of metacognitive strategies, with the mean and standard deviation of the evaluating strategies being smaller than planning and monitoring strategies.

Table 4.4 the one-way ANOVA analysis

		Sum of Squares	df	Mean Square	F	Sig.
Planning	Between Groups	146.025	2	73.012	8.336	.000
	Within Groups	858.332	98	8.758		
	Total	1004.356	100			
Monitoring	Between Groups	287.601	2	143.800	10.111	.000
	Within Groups	1393.765	98	14.222		
	Total	1681.366	100			
Evaluating	Between Groups	88.981	2	44.491	6.885	.002
	Within Groups	633.316	98	6.462		
	Total	722.297	100			
Metacognitive Strategies	Between Groups	1442.754	2	721.377	12.359	.000
	Within Groups	5720.256	98	58.370		
	Total	7163.010	100			

#### 4.4 The Exact Differences among the Three Groups' Choice of Metacognitive Strategies in Listening Comprehension

From the one-ANOVA analysis, it is concluded that there are significant differences with regard to the three groups' employment of metacognitive strategies in their listening comprehension. However, it is not clear as for the three groups' exact variation. Therefore, the method of multiple comparisons is used to answer this question.

According to table 4.5, the differences between successful listeners and less successful listeners' employment of metacognitive strategies as well as their choice of its' three subcatogries are highly significant.

Table 4.5 Multiple Comparisons

Dependent variable (I) Differences Group	Group (J) Differences	Mean difference (I-J)	Std. Error	Sig.	95%confidence Interval	
					Lower bound	Upper Bound
MS	1 2	5.90153*	1.84904	.008	1.3055	10.4976
	1 3	9.47883*	1.92535	.000	4.6931	14.2646
	2 1	-5.90153*	1.84904	.008	-10.4976	-1.3055
	2 3	3.57730	1.8336	.154	-.9790	8.1336
	3 1	-9.47883*	1.92535	.000	-14.2646	-4.6931
	3 2	-3.57730	1.83306	.154	-8.1336	.9790
Planning	1 2	1.25976	.71625	.218	-.5206	3.0401
	1 3	3.02621*	.74581	.000	1.1724	4.8800
	2 1	-1.25976	.71625	.218	-3.0401	.5206
	2 3	1.76645*	.71006	.050	.0015	3.5314
	3 1	-3.02621*	.74581	.000	-4.8800	-1.1724
	3 2	-1.76645	.71006	.050	-3.5314	-.0015
Monitor	1 2	3.28778*	.91271	.002	1.0191	5.5564
	1 3	3.98185*	.95038	.000	1.6196	6.3442
	2 1	-3.28778	.91271	.002	-5.5564	-1.0191
	2 3	.69408	.90482	.746	-1.5550	2.9431
	3 1	-3.98185*	.95038	.000	-6.3442	-1.6196
	3 2	-.69408	.90482	.746	-2.9431	1.5550
Evaluate	1 2	1.28974	.61525	.117	-.2398	2.8188
	1 3	2.37500*	.64064	.002	.7826	3.9674
	2 1	-1.28947	.61525	.117	-2.8188	.2398
	2 3	1.08553	.60993	.210	-.4305	2.6016
	3 1	-2.37500*	.64064	.002	-3.9674	-.7826
	3 2	-1.08553	.60993	.210	-2.6016	.4305

\* The mean difference is significant at the .05 level.

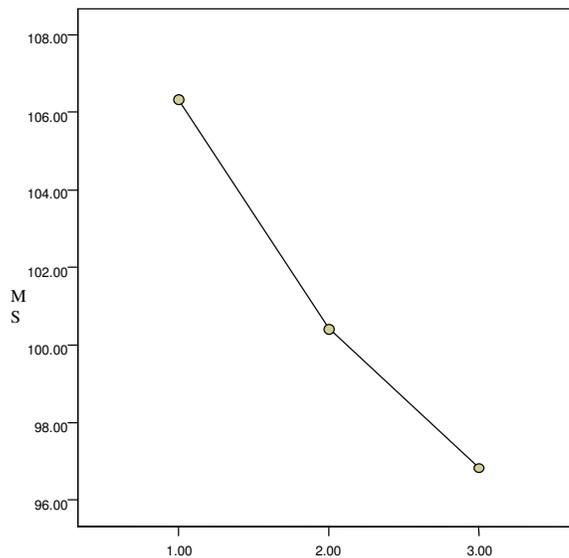
The significant differences between the first group and the second group lie in the application of the overall metacognitive strategies and monitoring strategies, for the significance is smaller than .05 and the zero is not included within the confidence interval. It indicates that successful listeners tend to use their repertoire of metacognitive strategies effectively than less successful listeners do. And there is no significant difference concerning two groups' use of planning strategies and evaluating strategies, for the significance is

larger than .05 and the zero is included within the confidence interval.

The significant difference between the second group and the third group lies in the employment of planning strategies (significance=.05). There are no significant differences in their employment of the overall metacognitive strategies, monitoring and evaluating strategies, for the significance is larger than .05 and zero is included within the confidence interval.

An obvious phenomenon we should pay attention to is that extremely significant differences consist in the first group and the third group. The two groups' variation in the employment of the evaluating strategies in their listening comprehension process is not as obvious as their variation in the employment of the general metacognitive strategies and the another two variables, as the significant coefficient is .02 while the other three is .000. To sum up, the group one outperforms the other two groups in employing the metacognitive strategies. The first groups' use of metacognitive strategies and its' subcategories is more frequent than that of the third group.

Table 4.5 Mean descriptions



In terms of the mean description, the first groups use metacognitive strategies most frequently. Moreover, through the run of the curve, it can be directly perceived that there is a linear relationship between listening proficiency and metacognitive strategies. In the light of one-ANOVA analysis, correlation analysis and multiple comparison analysis, a conclusion can be drawn that students who show more frequent use of metacognitive strategies than their peers tend to have higher listening proficiency level.

Based on the above analyses, we also know that there are significant differences between successful and unsuccessful listeners in the use of the metacognitive strategies. The successful listeners employ metacognitive strategies at a much higher level. It is not difficulty to work out the reason why these listeners are more successful. First, metacognitive strategies are higher operating strategies, which are used to oversee, monitor and regulate language learning. They involve a general understanding of the ways different factors act and interact to affect the course and outcome of mental processes. While as we have introduced that listening comprehension involves a complex process, it is possibly that successful learners have a better command about what might influence the process and achievement in listening comprehension. They are

aware of what to do to guarantee the smooth operation of mental processes. What's more, successful learners are characterized by learner autonomy. They consciously plan the optimal condition for their listening, monitor their listening process and make some evaluations accordingly.

#### 4.5 The Importance of Metacognitive Variables in Listening Proficiency

Table 4.5 Model Summary: the importance of metacognitive variables in listening proficiency

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.414(a)	.172	.163	4.08025
2	.455(b)	.207	.191	4.01144

a. Predictors: (Constant), monitoring

b. Predictors: (Constant), monitoring, planning

From the R column, it can be known that the re-correlation coefficient of model one is .414, and 17.2% of the variation of the English majors' listening proficiency can be predicted by monitoring strategies. Moreover, the two variables (planning and monitoring strategies) together can predict 20.7% variance of the listening proficiency. In other words, metacognitive strategies have some predictive power with listening proficiency to some extent. However, this result is much weaker than that of Dreyer and Oxford's (1996) research measured by TOEFL scores. The regression results show that metacognitive strategies alone account for 41.1% of the variation while affective and social strategies explain an additional 2.6% and 1.1% respectively. This is probably due to the fact that there are many variables not controlled in the study, such as English proficiency, gender, anxiety, etc. Anyway, it is generally believed that the increasing use of metacognitive strategies will lead to academic success. Many research studies including the present one support this view.

## 5. Major Findings and Conclusions

### 5.1 Major Findings

The current study is to investigate English majors' patterns and frequency of using metacognitive strategies in listening comprehension, the relationship between metacognitive strategies and listening proficiency, as well as the differences of the three groups' variation in the choice of metacognitive strategies in listening comprehension. The results reveal five major findings worthy of notice.

(1) Most English majors in China West Normal University are at the intermediate level in the implementing of metacognitive strategies in listening comprehension, which means that English majors have certain command of metacognitive strategies and certain consciousness to apply it to listening comprehension. Moreover, the successful listeners employ more metacognitive strategies in listening comprehension than less successful listeners especially in the field of monitoring strategies. In addition, their variation in the choice of evaluating strategies is less significant than in the planning and evaluating strategies.

(2) Metacognitive strategies are positively correlated with listening proficiency ( $r = .459, p = .000$ ). Of the three categories, "monitoring strategies", is most significantly correlated with listening proficiency ( $r = .414, p = .000$ ), followed by planning strategies ( $r = .394, p = .000$ ), finally the evaluating strategies ( $r = .339,$

$p = .001$ ). In short, there is positive linear relationship between metacognitive strategies and listening comprehension. The significant correlation conforms to the previous research that metacognitive strategies are central to effective learning. Besides, the results have confirmed previous findings that significant correlation exists between the use of metacognitive strategies and language proficiency, but the correlation coefficient is a little bit small. As Dreyer and Oxford (1996) get the result that the correlation coefficient between metacognitive strategies and reading/vocabulary learning is .64. He controls the variables of personality and learning styles, but the author in this paper does not control any variable, which may contribute to relatively low correlation in present study.

(3) Many researchers have confirmed the view that significant differences lie in three groups' use of metacognitive strategies in listening comprehension. The results in this study are consistent with these former researches. Monitoring strategies are varied more significantly ( $F=10.111$ ,  $p < .05$ ) in terms of the three groups' employment, followed by planning strategies ( $F=8.336$ ,  $p = .000$ ), finally the evaluating strategies ( $F=6.885$ ,  $p = .02$ ). The first group outperforms the second group in the choice of metacognitive strategies and monitoring strategies. The significant differences between the first group and the third group consist in the choice of metacognitive strategies and its' three variables. It is revealed in this study that both the successful and unsuccessful listeners are relatively weak in the employment of evaluating strategies. In short, listeners with a better command of metacognitive strategies are prone to be more successful than those who adopt less metacognitive strategies.

(4) The employment of monitoring strategies is the most distinctive feature of successful listeners and is most correlated with the listening proficiency among the variables. The single variable, monitoring strategies, can predict 17.2% variance of the listening proficiency in the light of multiple regressions. Moreover, the two variables (planning and monitoring) together can predict 20.7% variance in the listening proficiency.

## 5.2 Pedagogical Implications

### 5.2.1 Adjusting the Role of Teachers

In recent years, the learner-centered teaching methodology has been highly advocated. Teachers should be regarded as facilitators or counselors, and the initiative of students in their studying is emphasized. Roughly speaking, what teachers are expected to do is not just inculcate knowledge to students regardless of learner differences but to cultivate students' autonomy, to instruct them the way to learn, and to help them take charge of their learning. Just as Harmer (2000) states that the teacher's role is to help students learn in a better way and to encourage them to develop learning strategies. The idea of metacognitive strategies is consistent with the essence of learner-centered classroom. The employment of appropriate learning strategies prompts students to take more responsibility for their own learning at the same time promote learner autonomy, independence, and self-regulation. Therefore, the idea of learner-centered classroom should be highly advocated. In other words, teachers are expected to take the initiative to foster learner initiative and instruct students at the metacognitive level of how to tackle their daily listening problems and their long-term listening practices.

### 5.2.2 Cultivating Students' Metacognitive Awareness in Listening Comprehension

From the discussion in Chapter Four, it is known that students are at a medium level as for their choice of metacognitive strategies, and the unsuccessful listeners do suffer from lack of metacognitive strategies in

listening comprehension. This result indicates that Chinese English majors generally cannot adopt metacognitive strategies quite effectively in English listening comprehension. Therefore, it is necessary for listening teachers to pay more attention to cultivating students' ability to employ metacognitive strategies in listening.

Metacognitive strategies are known to be a kind of higher executive strategies. Accordingly teachers should help students make a distinction between cognitive strategies and metacognitive strategies, and demonstrate how to apply both cognitive and metacognitive skills in listening comprehension. The more distinctly those examples are set, the more likely students will employ cognitive and metacognitive skills in their listening smoothly and successfully. The observation of how metacognitive strategies acting is by no means possible on the part of learners for they are operated in the psychological process. Thus, to modelize the use of strategies in English teaching and learning is a must. Teacher should consciously inspire students to understand when, what, how, and why to apply the metacognitive strategies in listening. Moreover, teachers should allot time for group discussion. For instance, after finishing a listening material, students are required to discuss within groups on how they prepare themselves for listening, the effectiveness of the strategies they adopted, and their mental activities when they are confronted with problems and how they solve them. More discussions about listening from a metacognitive viewpoint are quite necessary. Students' metacognitive awareness can be promoted to some extent in the process. Furthermore, to cultivate metacognitive awareness in their listening comprehension, teachers should require students to reflect more on their listening process.

Firstly, as demonstrated in this study, English majors' employment of evaluating strategies is less than the other two variables. Therefore, concern should be paid to arouse students' awareness of employing the self-evaluation strategies in listening comprehension. Evaluating strategies plays an important role in enabling learners to know themselves and the listening tasks they are coping with better. Keeping diaries is regarded as an useful way to foster listeners' evaluating strategies, for intervention and self-reflection is not possible on account of its special and complex listening process, and then keeping diaries after listening is a good idea to take down how students make use of existing knowledge, especially what kinds of strategies were applied, to solve problems. They are advised to look back on their mental activities to identify whether there are some other methods they can take advantage of to solve the problems. The act of conducting activities like keeping diaries is in itself a reflection on awareness in self-evaluation. Through participating in these activities, listeners will become more flexible and more critical towards their listening. In addition, through constant evaluating and summary, students' metacognitive awareness can be promoted to some extent.

Secondly, as confirmed in this study, the employment of monitoring strategy is the most distinctive feature of successful listeners and is correlated most significantly with the listening proficiency among the three variables. Therefore, high priority should be accorded to train students' monitoring including monitoring strategies, monitoring directions, and monitoring process. Students should be well-educated to be self-questioning, check whether their answers are correct, analyze and infer message from multidimensional angel, and finally adopt appropriate cognitive and social-affective strategies to tackle complicated listening problems at the proper time.

#### 5.4 Suggestions for Further Research

Because of the aforementioned limitations of this research, there are some suggestions for future research. Firstly, study should be carried out on a larger scale to strengthen the objectivity of the study. Secondly, interview should be involved to clarify a more detailed presentation of mental activities of listeners. Besides it is better for more interviewees to stand for the successful and unsuccessful listeners. Thirdly, some variables affecting listening proficiency can be controlled to study the relationship between metacognitive strategies and listening comprehension. Fourthly, Future research may focus on the practice of cultivation students' metacognitive listening strategies, and to verify its feasibility. More practical training is needed.

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## **Appendix A**

### **Questionnaire**

Dear students,

This questionnaire is to investigate your mastery of metacognitive strategies in an effort to improve your listening proficiency. There are no standard answers concerning these questions. Please read each statement and tick the response (1,2,3,4, or 5) that tells how you cope with these statements in listening.

- 1 never or almost never true of me
- 2 usually not true of me
- 3 somewhat true of me
- 4 usually true of me
- 5 always or almost true of me

Please do not answer how you think the answers should be, or what other people hope you are, but in terms of the fact that how well these statements describe you. If you have any question, please ask me immediately. Your answers are beneficial for my study, thanks!

1. Before listening, I know what I must pay attention to while I listen.
2. Before listening, I have asked the teacher for classifications, if necessary.
3. Before listening, I have attempted to recall all that I know about the topic.
4. Before listening, I have attempted to recall what I know about the type of text I will listen to and the type of information I will probably hear.
5. Before listening, I have made predictions on what I am about to hear.
6. I am ready to pay attention and concentrate on what I am about to hear.
7. Before listening, I understand the task (what I have to do after I have finished listening).
8. Before listening, I have encouraged myself.
9. Before listening, I know what kind of strategies I will use according to different tasks.

10. During listening, I focus my attention on the information needed to accomplish the task and put aside the unrelated topics and content.
11. During listening, I attempt to verify my predications and revise them accordingly.
12. During listening, I try my best to keep my attention and avoid the disturbance.
13. During listening, I infer the following content, make clear about its' importance and revise it accordingly.
14. During listening, if there is something disunderstandble, I will concentrate on the following part, and hope the ambiguity will be cleared.
15. During listening, if the listening strategies are improper, I will change them accordingly.
16. During listening, I integrate key points, for example, subject sentences, to help me understand the listening material.
17. During listening, I know clearly what I do not understand.
18. During listening, I assess the importance of some parts that are related to the task.
19. During listening, I make use of background knowledge or common sense to promote my comprehension.
20. During listening, I make use of conjunction words, such as therefore, however, and moreover, to help me get a better understanding of the listening material.
21. During listening, I use background sound, tone of voice, and other clues to help me guess the meaning of those words I did not understand.
22. I used key words, cognates, and word families to understand the text.
23. I use my knowledge of the context and of text structure to understand the text.
24. During listening, I consciously monitor my comprehension of the material and make evaluation accordingly.
25. After listening, I evaluate the logic/plausibility of what I understand.
26. After listening, I check and verify what I have done in listening tasks.
27. After listening, I evaluate the effect of my listening strategies and draw a lesson from it.
28. After listening, I sum up what I should do in the following similar listening tasks.
29. After listening, I assess how many scores I can get before I check the answers.
30. After listening, I usually keep a listening diary.
31. After listening, I evaluate whether I have made any progress in listening or not.
32. After listening, I check whether my understanding is in accordance to the content of the listening material or not.