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INVESTIGATING THE EFFECTS OF METACOGNITIVE INSTRUCTION ON CHINESE EFL LEARNERS' LISTENING PERFORMANCE

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ABSTRACT

This article presents findings of a small scale survey study (N= 90) that investigated Chinese EFL learners' degree of metacognitive awareness of L2 listening using the Metacognitive Awareness Listening Questionnaire (MALQ) (Vandergrift, Goh, Mareschal, and Tafaghodtari, 2006) and an intervention study (N= 60) that examined the effectiveness of metacognitive instruction for developing learners' metacognitive awareness and listening performance. In the intervention study, two groups of learners participated in five weekly one-hour listening lessons, one group (N= 30) following a metacognitive framework and the other group (N= 30) following a traditional approach to teaching listening in China. Both groups took a listening test before and after the period of instruction, respectively. The results of the paired-samples *t*-tests show significant improvements in the listening performance of both groups. However, an independent *t*-test also reveals the experimental group that received metacognitive instruction outperformed the control group to significance. Individual post-learning reflective journals of the experimental group further support the positive effects of metacognitive instruction on learners' metacognitive awareness and confidence.

Keywords: Listening performance, Metacognitive awareness, Metacognitive instruction

INTRODUCTION

Listening has long been recognized as a critical dimension in language learning and plays a vital role in second language pedagogy (Gass, 1997; Nation and Newton, 2008). The importance of listening in communication has also been well documented (Wolvin and Coakley, 2000). In spite of this, many scholars (Vandergrift, 2007) agree that listening is still somewhat overlooked in second language learning as greater prominence continues to be accorded to the development of more 'visible' skills such as speaking and writing, as well as the receptive skill of reading.

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Even in situations where the curriculum recognises the importance of listening, such as the current curriculum of college English in mainland China, more can be done to facilitate a principled approach to helping EFL learners develop their listening abilities. In China, listening comprehension is a compulsory module for all non-English major undergraduates. In the important College English Test Band 4 (CET-4) the assessment of listening comprises 35% of the total weighting of the test. Passing this test is both a hallmark of successful completion of two years of college English learning as well as a prerequisite for obtaining a Bachelor's degrees (National College English Testing Committee, 2006). Beyond language learning and assessment, listening is also valued as an important language communication skill in the current economic landscape in China as the country seeks modernisation and global economic participation at all levels.

In spite of it being an important component in the current curriculum of college English, research shows that listening is the weakest skill for Chinese tertiary-level EFL learners, whose overall language proficiency is considered to be at an intermediate level (Wang, 2002). In China, college students receive an average of 2 hours per week of listening instruction for 30-32 weeks in the whole academic year. Many listening classes are also noted for a heavy emphasis on a battery of listening exercises in order to prepare undergraduates for the national CET-4 test. Moreover, Chinese students who are studying in other English-speaking countries also consider listening to be their greatest challenge (Liu and Goh, 2006)

Given the limited time for classroom instruction and a conventional approach that mainly emphasizes exam preparation as a whole, there is a need to find more principled and effective ways of helping Chinese college English learners improve their listening. Drawing on research that has foregrounded the fundamental importance of metacognition in L2 listening, a metacognitive instruction approach for listening development of Chinese EFL learners was proposed in the present study. Such an approach highlights the critical role of metacognition in the learning process and provides learners with various metacognitive awareness-raising activities. Such activities aim at developing learners' knowledge about the complex listening processes with appropriate scaffolding, assistance and facilitation from teachers (Goh, 2008; Vandergrift and Goh, 2012).

This article sets out first to investigate the current level of metacognitive awareness in listening for a group of Chinese tertiary EFL learners. Then it reports the findings of an intervention study that examines the effectiveness of metacognitive instruction for developing the metacognitive awareness and listening performance of a sub-set of these learners. Post-learning reflective journals are also analyzed to reveal their deepened understanding of the nature, demands and processes of L2 listening.

LITERATURE REVIEW

Metacognition refers to knowledge about and regulation of one's cognitive activities in learning processes (Brown, 1978; Flavell, 1979). According to Flavell (1979), metacognitive knowledge, which comprises person knowledge, task knowledge and strategic knowledge, plays an important role in facilitating one's thinking and learning.

Wenden (1991, 1998, 2002) incorporated Flavell's (1979) metacognitive knowledge framework into the language learning and teaching context, arguing that enabling learners to develop greater understanding of themselves (person knowledge), of learning tasks (task

knowledge) and of learning strategies (strategy knowledge) is crucial as learners with better metacognitive awareness tend to be more conscious of the importance of and interested in self-appraising and self-regulating their learning for greater success.

In the last decade, studies of metacognition in listening have begun to focus on learners' self-discovery of metacognitive knowledge through a process-based instruction model, where learners' self-reports were frequently used to tap their understanding and awareness of the nature, demand, and processes of L2 listening (Cross, 2010; Goh, 1997; Vandergrift et al., 2006). One recent and well-established instrument for eliciting L2 listeners' metacognitive awareness and perceived use of strategies while listening to oral texts is the Metacognitive Awareness Listening Questionnaire (MALQ) (Vandergrift et al., 2006). The MALQ targets 5 factors: person knowledge, planning and evaluation, mental translation, directed attention, and problem-solving, and has already been used profitably in several studies for examining listener's metacognitive awareness (e.g., Altuwairesh, 2013; Goh and Hu, 2013; Mareschal, 2007; O'Bryan and Hegelheimer, 2009).

It has been argued that targeting learners' knowledge of person, task and strategy in listening instruction can have positive influences on their listening development (Goh, 1997; Goh and Taib, 2006; Vandergrift, 2005; Vandergrift and Tafaghodtari, 2010). In one related study, Vandergrift (2002) demonstrated that having learners reflect on the processes of listening could help them develop metacognitive knowledge and achieve greater success. Results suggested that use of reflective journals was helpful in improving students' metacognitive knowledge and helping them develop a better understanding of the processes underlying L2 listening comprehension.

Vandergrift (2004) further proposed a metacognitive cycle to help learners develop their metacognitive knowledge while listening. The cycle includes important metacognitive processes such as planning, monitoring, regulating, verification and evaluation that effective learners engage in. Vandergrift observed that these processes not only raise learners' awareness about listening processes, but also offer much needed scaffolding while learners are working with listening texts to achieve better comprehension.

More recently, Vandergrift and Tafaghodtari (2010) investigated the effects of a metacognitive, process-based approach to teaching French as a second language (FSL) listening course. The study reveals that the experimental group using a methodology that led learners through the metacognitive processes (prediction/planning, monitoring, evaluating, and problem solving) significantly outperformed the control group on the final comprehension measure, after they controlled for initial differences. They also found that the less-skilled listeners in the experimental group made greater gains than their more skilled peers. Similar findings were also reported in a related study by Cross (2011).

Regarding Chinese learners, several studies have explored the beliefs and knowledge that overseas Chinese English learners had about their listening (Goh, 1997; Liu and Goh, 2006). Although verbal-reports were used instead of the MALQ, these studies showed that the many Chinese students they investigated were quite clear about three essential aspects of listening: person knowledge, task knowledge, and strategic knowledge when they were asked to write about their listening experiences of learning how to listen. Overall, however, research into learners' metacognition in listening in mainland China is scant despite its huge English learning population. Furthermore, most listening studies in China focus on English major students and their focus is limited to investigating the current status of students' use of strategies (Jiang, 1994; Wang, 2002). To date there appears to be no published study

conducted in mainland China which has investigated L2 listeners' metacognitive awareness using the MALQ or explored the effectiveness of metacognitive instruction in developing the metacognitive awareness and listening performance of Chinese non-English major undergraduates, and this study aims to begin to inform understanding in this context.

METHOD

A survey study using the MALQ was firstly conducted with ninety second year non-English major undergraduates in two parallel engineering classes at a Chinese technological university to assess their metacognitive awareness while listening to oral texts. After that, an intervention study was carried out, which involved a control group (N= 30) and an experimental group (N= 30) taking five weekly one-hour listening lessons. This intervention was in addition to students in both groups receiving 4 hours per week of listening instruction conducted in a traditional 'comprehension approach' manner consisting of listening exercises, checking answers, explaining difficult parts and repeated listening with the same instructor.

The experimental group followed a metacognitive framework that combined listening practice, strategy-awareness raising, peer discussion and individual reflection. The control group's one-hour lessons followed the traditional approach they experienced in their regular classes. Participants were mainly involved in one-way listening activities in the study as two-way listening is very limited for students in the Chinese tertiary context.

In Week 1 and Week 7, both groups took a CET-4 listening pre-test and post-test, respectively.

The study sets out to answer three key research questions:

1. What degree of metacognitive awareness of L2 listening do Chinese EFL learners have?
2. How effective is metacognitive instruction in improving learners' listening performance?
3. What are the potential benefits of metacognitive instruction in L2 listening?

Participants

Participants in the MALQ part of the study (N= 90) were similar in terms of English proficiency level based on their test scores in the National Entrance Examination. They had attended two years' intensive English training program before taking part in the national CET 4 at the end of the fourth semester.

60 students were then chosen from the original volunteer population of 90 and randomly assigned to an experimental (N= 30) or a control group (N= 30) after the MALQ was completed.

Demographic data collected prior to the intervention showed that students in both groups were not significantly different in terms of age, educational background and English learning experience.

The two engineering classes were taught by the same English teacher. There were no dropouts from both groups during the study.

Instruments

Three instruments were used in the current study to collect data to address the three research questions respectively: the MALQ before the intervention, CET4 listening sections during the study, and reflective journals at the end of the intervention.

The MALQ

The original English version of MALQ (Vandergrift et al., 2006) was used in the present study to assess a broader group of Chinese EFL learners' metacognitive awareness (N= 90). As mentioned, the 21-item questionnaire covers five factors related to learners' metacognitive awareness: person knowledge, planning and evaluation, mental translation, directed attention, and problem-solving.

Wenden (1991) argued that person knowledge like learner perceptions, anxiety, and self-efficacy was significantly and directly related to academic expectations, approach to learning, and academic performance, including strategy use and task persistence.

Planning/evaluation refers to strategies that listeners use to prepare themselves for listening, and to evaluate the results of their listening efforts. It is argued these strategies represent the purposeful nature of the comprehension process and the online appraisal of whether comprehension goals were being realized (Rost, 2005).

Regarding mental translation, Vandergrift (2005) contends that this represents an inefficient approach to listening comprehension that beginning-level listeners often feel compelled to use, but which they must overcome in order to become skilled L2 listeners.

Directed attention refers to strategies that listeners use to concentrate and to stay on task. These strategies all represent the important roles played by attention and concentration in the process of listening comprehension (Rost, 2002).

Problem-solving refers to strategies listeners use to infer and to monitor these inferences. These strategies represent the problem-solving processes, the knowledge retrieval processes, and the accompanying verification (monitoring) processes (Kintsch, 1998).

As suggested by Vandergrift et al. (2006), the MALQ was used in this study for self-assessment purposes, an awareness-raising tool, and a research tool. In accordance with Pintrich who argues that "because metacognitive knowledge in general is positively linked to student learning, explicitly teaching metacognitive knowledge to facilitate its development is needed" (2002, p. 225), an important step of subsequently applying the MALQ in the study was to break down the questionnaire into the five listening factors, with one factor to be covered separately in one of five listening training sessions with the experimental group accordingly.

CET-4 Listening Sections

Seven CET-4 listening sections randomly chosen from an original CET-4 test paper package released by the National CET-4 Committee and which participants had no access to were used as listening materials for both groups. Besides the pre-test (Week 1) and post-test (Week 7), the other five CET-4 listening sections were used as listening practice materials in Weeks 2 to 6.

The listening comprehension section of the CET-4 assesses students' ability to comprehend oral information (National College English Testing Committee, 2006). Listening materials are presented in standard British English or American English at a speed of 130

words per minute. This part accounts for 35% of the total score, dialogue being 15% and passages being 20%. The total time set for the listening comprehension section is 35 minutes. The content, item type and score value in the listening comprehension section of CET-4 are shown in Table 1.

Table 1. The Content, Item Types and Score Percentage in the Listening Section of the CET-4

<table>
<tr><td colspan="3">Content</td><td>Item Type</td><td colspan="2">Score Percentage</td></tr>
<tr><td rowspan="4">Listening Comprehension</td><td rowspan="2">Dialogues</td><td>Short Dialogue</td><td>Multiple Choice</td><td rowspan="2">15%</td><td rowspan="4">35%</td></tr>
<tr><td>Long Dialogue</td><td>Multiple Choice</td></tr>
<tr><td colspan="2" rowspan="2">Passages</td><td>Multiple Choice</td><td rowspan="2">20%</td></tr>
<tr><td>Compound Dictation</td></tr>
</table>

Reflective Journals

Students in the experimental group were asked to write reflective journals in response to the following prompts provided by the researcher immediately after the intervention was completed:

- What difficulties did you come across when you listen to English oral texts?
- What have you done in trying to understand the listening tasks and get the correct answers?
- What have you got from the five listening lessons?

The researcher not only actively involved students into thinking what they know, do and feel in L2 listening but also encouraged them to place greater emphasis on the process of listening rather than the result of comprehension through incorporating the opportunity for individual reflection. Students were encouraged to reflect in Chinese so that they could record their perceptions more easily.

Procedure

The MALQ data was collected in the participants' regular listening classes prior to Week 1 of the intervention study.

The test scores were collected at the end of each training session. Quantitative data, that is, responses elicited from the MALQ and the test scores, were processed using SPSS 15.0 for Windows.

Written reflections were gathered at the end of the study in Week 7. This qualitative data was transcribed verbatim for coding by two coders independently. The coding scheme was based on previous studies on L2 listening by Goh (2002) and Gu, Hu, and Zhang (2009) . The researcher and another coder divided the data into two sets and coded independently according to the coding scheme. Then the coders double-coded the two sets of transcripts that

has already been coded by the other coder. The inter-coder reliability was slightly over .85 after calibration.

Experimental Group

The metacognitive instruction undertaken with the experimental group included three stages:

- Stage 1. Simulated listening test took about twenty-two minutes, with immediate grading (3 minutes) by their peers against test rubrics provided by the researcher.
- Stage 2. Ten minutes of individual self-reflection on three reflective prompts as mentioned earlier.
- Stage 3. Three steps were followed in this stage, which include group-discussion, class-sharing, and teacher-guided awareness-raising (in Chinese) in detail concerning one specific factor of metacognitive awareness.
  - Step 1. Group-discussion (5 minutes)
    Students were asked to form groups of 4-5 people and to exchange their understanding of one specific factor, for instance, Person Knowledge in training session 2. Students were allowed to discuss in Chinese so they could put forward what they really perceived. The purpose of Step 1 is to encourage students to learn from their peers, especially those efficient listeners in their group.
  - Step 2. Class-sharing (5 minutes)
    Two students from different groups were invited to share their understanding with the whole class based on the group-discussion in Step 1. Each student was given about 2 minutes to talk and they were again allowed to use Chinese. Other participants were encouraged to contribute their understanding and ideas while sharing.
  - Step 3. Awareness-raising (10 minutes)

A handout concerning the questionnaire items of MALQ was distributed to students for reference. The handout focused on one specific factor in each training session. It consisted of a concise explanation of the given factor and its corresponding MALQ items, and the researcher also exemplified (based on his own experience as a L2 listener) how these elements informed L2 listening.

Step 3 lasted about 10 minutes and Chinese was used for explanation while guiding students through the handout. The purpose of Step 3 was to raise students' awareness of the five metacognitive factors in L2 listening (person knowledge, planning/evaluation, direct attention, mental translation and problem-solving).

Finally, repeated listening was encouraged as students were assigned to review the material in their spare time based on the transcripts provided by the researcher.

Control Group

L2 listening learning in China largely involves activities to be performed to produce a product (i.e., answers) using a comprehension approach. Typically, three stages are included:

- Stage 1. Simulated listening test took about twenty-two minutes, with immediate grading (3 minutes) by their peers against test rubrics provided by the researcher.
- Stage 2. Teacher's explanation of difficult chunks.
  The researcher spent ten to fifteen minutes time in explaining some difficult chunks according to the tape scripts.
- Stage 3. Repeated listening for the second time
  Students would listen to half of the material for the second time. It is hoped that they could achieve a better understanding of the oral texts with teacher's explanation and their notes taken in stage 2. Students were assigned to finish the other half of the material in their spare time.

RESULTS

Chinese EFL Learners' Metacognitive Awareness of Listening

To address research question one, participants' (N=90) answers to the MALQ were tallied as a representation of their perceived level of metacognitive awareness of L2 listening.

Person Knowledge

Table 2 indicates that about two thirds of the participants regarded listening in English a real challenge, though less than half of them felt that listening is more difficult than other three micro-skills of English. However, about 55% of the participants did not feel nervous when they listened to English.

Planning and Evaluation

Table 3 shows more than half of the participants had a plan in their heads for how they were going to listen before they started to listen. By contrast, only 20 percent of them were regarded as unprepared listeners. Table 3 further suggests that nearly 60 percent of the participants stated they tried to recall their past listening experience and prior knowledge to help them comprehend and they also had a goal in mind for what they were going to listen. However, there are still a comparatively high percentage of participants (36.6%) who would not think of similar texts that they may have listened to and another 40% of participants who were almost unclear for what they were listening for.

Table 2. Participants' Self-report on Person Knowledge

Questionnaire Item	Scale					
	1 (Strongly disagree) → 6 (Strongly agree)					
3. I find that listening in English is more difficult than reading, speaking, or writing in English.	18.89%	18.89%	13.33%	11.11%	16.67%	21.11%
8. I feel that listening comprehension in English is a challenge for me.	5.56%	6.67%	21.11%	14.44%	24.44%	27.78
15. I don't feel nervous when I listen to English.	10.0%	15.56%	18.89%	20.0%	21.11%	14.44%

Table 3. Participants' Self-report on Planning and Evaluation Strategies

Questionnaire Item	Scale					
	1 (Strongly disagree) → 6 (Strongly agree)					
1. Before I start to listen, I have a plan in my head for how I am going to listen.	8.89%	11.11%	28.89%	20.0%	14.44%	16.67%
10. Before listening, I think of similar texts that I may have listened to.	17.78%	18.89%	5.56%%	27.78%	10.0%%	20.0%
14. After listening, I think back to how I listened, and about what I might do differently next time.	18.89%	21.11%	7.78%	17.78%	18.89%	15.56%
20. As I listen, I periodically ask myself if I am satisfied with my level of comprehension.	18.89%	25.56%	13.33%	12.22%	18.89%	11.11%
21. I have a goal in mind as I listen.	12.22%	13.33%	14.44%	13.33%	31.11%	15.56%

Mental Translation

Table 4 shows that around 70 percent to 80 percent of participants believe they translated what they heard, key words in particular, to help them comprehend. By contrast, as shown in Table 4, less than one fifth of the participants translated word by word while listening.

Table 4. Participants' self-report on Mental Translation strategies

Questionnaire Item	Scale					
	1 (Strongly disagree) → 6 (Strongly agree)					
4. I translate in my head as I listen.	5.56%	10.0%	14.44%	12.22%	26.67%	31.11%
11. I translate key words as I listen.	2.22%	7.78%	7.78%	21.11%	36.67%	24.44%
18. I translate word by word, as I listen.	30.0%	18.89%	16.67%	14.44%	11.11%	8.89%

Directed Attention

Table 5 reveals that around two thirds of the participants focused harder when they had difficulty understanding and were also able to recover concentration to stay on track when their minds wandered or concentration was lost. However, it is found that around one third of the participants experienced anxiety and would give up when they had difficulties in understanding the oral texts.

Table 5. Participants' Self-report on Directed Attention Strategies

Questionnaire Item	Scale					
	1 (Strongly disagree) ⟶ 6 (Strongly agree)					
2. I focus harder on the text when I have trouble understanding.	4.44%	7.78%	18.89%	18.89%	30.0%	20.0%
6. When my mind wanders, I recover my concentration right away.	7.78%	10.0%	17.78%	13.33%	35.56%	15.56%
12. I try to get back on track when I lose concentration.	6.67%	5.56%	13.33%	10.0%	34.44%	30.0%
16. When I have difficulty understanding what I hear, I give up and stop listening.	30.0%	18.89%	15.56%	13.33%	7.78%	14.44%

Problem-Solving

Table 6 shows that more than two thirds of the participants felt they used known words and the general idea of a text to help them guess the meaning of the new words.

Table 6. Participants' Self-report on Problem-solving Strategies

Questionnaire Item	Scale					
	1 (Strongly disagree) ⟶ 6 (Strongly agree)					
5. I use the words I understand to guess the meaning of the words I don't understand.	5.56%	17.78%	7.78%	22.22%	24.44%	22.22%
7. As I listen, I compare what I understand with what I know about the topic.	4.44%	8.89%	7.78%	20.0%	30.0%	28.89%
9. I use my experience and knowledge to help me understand.	3.33%	3.33%	6.67%	13.33%	22.22%	51.11%
13. As I listen, I quickly adjust my interpretation if I realize that it is not correct.	2.22%	5.56%	14.44%	14.44%	41.11%	22.22%
17. I use the general idea of the text to help me guess the meaning of the words that I don't understand	4.44%	4.44%	11.11%	11.11%	32.22%	36.67%
19. When I guess the meaning of a word, I think back to everything else that I have heard, to see if my guess makes sense.	4.44%	7.78%	11.11%	26.67%	28.89%	21.11%

It also reveals that nearly four fifth of the participant stated they used their experience and general knowledge in interpreting the oral text. A similar percentage of the participants compared the developing interpretation with their knowledge of the topic and were ready to adjust their interpretation upon realizing that it was not correct.

To sum up, results show that Chinese undergraduates in the study have a comparatively higher degree of metacognitive awareness in factors like person knowledge, planning and problem solving than in directed attention and evaluation. In addition, though most participants reported they did not use word by word translation, clearly more evidence is needed for us to draw sound conclusions that learners are fully aware of its debilitating effect.

Effectiveness of Metacognitive Instruction in Improving Students' Listening Performance

In order to address the second research question, all test scores obtained from seven continuous tests were processed using SPSS 15.0 for Windows to examine the effectiveness of metacognitive instruction in improving students' listening performance. The scores underwent the Kolmogorov-Smirnov test and the Shapiro-Wilk test (Pallant, 2003) to evaluate the normality distribution of quantitative data. Results show that around 93 percent of the data were normally distributed, therefore, further analysis was carried out.

The result of paired-samples *t*-tests for both groups on a pre-test and a post-test shows significant improvements in the listening performance of both the experimental group (t = 8.91, df = 29, p < .001) and the control group (t = 4.79, df =29, p < .001) as indicated in Table 7.

Table 7. Paired Samples *t*-test of both Groups on a Pre-test and a Post-test (N= 30 students in each group)

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Control group	Pre-test	9.65	4.02	.73	2.02	5.02	4.79	29	.000
	Post-test	13.17							
Experimental group	Pre-test	9.5	4.10	.75	5.14	8.20	8.91	29	.000
	Post-test	16.17							

An independent-samples t-test was conducted to compare the listening test scores of a pre-test and a post-test for each of the two groups to explore listening performance changes before and after the intervention. Table 8 shows, in the first place, that experimental group students were not significantly different from control group students on listening performance in the pre-test (t = 0.22, df = 58, p = .824).

The results were supported by participants' demographic data that students in both groups were not significantly different in terms of age, educational background and English learning

experience. However, for the post-test, the independent *t*-test found that the experimental group outperformed the control group to significance (t = -3.10, df = 58, p = .003; Cohen's d = .8).

Table 8. Comparison of Experimental and Control Group on a Pre-test and a Post-test (N= 30 Students in each Group)

Test	Class	N	*Mean*	*SD*	*Max.*	*Min.*	*t*	*df*	*P*
Pre-test	Control group	30	9.65	2.74	17	6.5	.22	58	.824
	Experimental group	30	9.50	2.44	16	6.5			
Post-test	Control group	30	13.17	3.63	18	7	-3.10	58	.003
	Experimental group	30	16.17	3.87	20.5	8			

In summary, findings of the study seem to indicate that students' listening performance in both groups improved significantly across the study and that the experimental group which received metacognitive instruction outperformed the control group to significance.

Potential Benefits of Metacognitive Instruction in Listening

To address the third research question, five major potential benefits of the metacognitive instruction that the participants in the experimental group reported to have gained were listed in Table 9. The ranking was based on the tally of the frequency of the benefits as reflected in the participants' reflective journals right after the post-test in Week 7 of the study.

Table 9. Top Five Potential Benefits of the Metacognitive Instruction

No.	Potential benefits of the metacognitive instruction	Percent
1	I am no longer nervous when I listen to English oral text.	100%
2	I am more confident to learn it (English listening) well.	97%
3	I learned some useful strategies in listening.	93%
4	I can force myself to listen carefully when my mind wanders.	80%
5	I know word by word translation is a bad habit and I am trying to overcome it.	70%

Note: N=30.

As shown in Table 9, all thirty participants in the experimental group reported in their written reflections that they were no longer nervous when they listened to CET-4 listening sections after seven weeks of metacognitive instruction. Besides, twenty-nine of them (97%) expressed more confidence to learn it well, although they acknowledged their current weakness in English listening and were quite aware of the difficulty and challenge ahead.

Twenty-eight participants in the experimental group (93%) reported that they have learned some useful strategies to help them comprehend English oral texts, among which the

prediction strategy in the problem-solving category and directed attention strategies were very much highlighted in their reflections.

Participants also reported other gains besides the aforementioned top five benefits. For instance, they came to know the crucial importance of background knowledge. They decided to do necessary preparation rather than listen without a goal or a plan as they did it before. Some also reported they would spend time summarizing after listening and reflect useful strategies.

DISCUSSION

Chinese EFL Learners' Metacognitive Awareness in English Listening

The first research question focused on investigating what Chinese EFL learners know about learning to listen in English. The analysis of the MALQ (N= 90) conducted prior to the intervention demonstrates that Chinese non-English major undergraduates in the study have a fairly high degree of metacognitive awareness of listening learning in aspects like person knowledge, planning and problem solving. Students are, however, still limited in their use of directed attention and online-appraisal. Furthermore, most participants seem to be aware of the debilitating effect of word by word translation.

The MALQ also indicates that the majority of the ninety participants regarded listening in English a real challenge, though less than half of them felt that listening is more difficult than reading, writing or speaking. Given that listening has long remained one of the weakest language skills among Chinese university students due to insufficient investment in terms of time and effort and lack of an English environment for real communication, it would be reasonable for students to hold certain perceptions about the difficulty and demands of L2 listening. However, more than half of the participants did not feel nervous when they listened to English.

Just over half of the ninety participants were found to be prepared listeners. The finding is in line with Vandergrift's (2002) argument that having a plan for listening is helpful in preparing listeners for the incoming oral texts. However, more awareness-raising activities concerning the purposeful nature of the comprehension process are obviously needed, which could help those unprepared learners (approximately 48% of participants) set a goal for the listening task and develop a clearer plan for actual listening comprehension. As for evaluation, the survey results still seem encouraging though the sample size is relatively small. Nearly 60 percent of participants stated that they reflected on their listening and evaluated the effectiveness of their L2 listening.

In an EFL context like China, English learners are learning the language without much chance to conduct two-way communication with native speakers. The study shows that most participants believe they translate what they hear, key words in particular, to help them comprehend.

Therefore, Chinese EFL learners need to be cautioned of the negative impact of mental translation, word by word in particular, on listening comprehension for them to become skilled and efficient listeners. Indeed, some participants in the experimental group reported in their Week 7 written reflections that they believed translating key words to Chinese helped

ensure their understanding of what they listened to. Yet more participants agreed that they have done it unconsciously ever since they started listening in English in their junior high without knowing whether this really worked or not.

Participants in the study are mature college students, who exhibited strong skills in managing their attention and staying focused as reported earlier. However, as many as one third of the participants experienced anxiety and several students even stopped listening in the middle of a listening test.

Such students in the experimental group wrote in their reflective journals that it was because they felt so anxious and frustrated that they just could not continue for further listening tasks and they simply gave up. Therefore, listening teachers need to spend more time helping these weak students in developing such awareness as staying confident, overcoming anxiety and persevering despite difficulties so that they could direct more attentional resources on listening.

Results show that most participants were aware of a variety of problem solving strategies and reported employing them quite frequently when needed to enhance their comprehension. For example, around three fourths (72.2%) of the participants reported to use the words they understood to guess the meaning of the words unknown. Similar percentage of the participants (71.6%) reported to compare the developing interpretation with their knowledge of the topic and more than four fifths of the participants (83.2) reported using their experience and general knowledge in interpreting the oral text. Furthermore, results indicate that a large number of participants said they were ready to adjust their interpretation upon realizing that it was not correct.

When participants used known words to deduce the meaning of unknown words, a majority of the participants (83.6%) reported using the general idea of a text to help them guess the meaning of the words that they did not understand and even more of them (85.2%) would think back to everything else that they had heard to see if the guess made sense.

In a nutshell, the fact that participants were far from being fully aware of important aspects of listening learning presents justification for more awareness-raising activities in metacognitive instruction.

Effectiveness of Metacognitive Instruction in Improving Students' Listening Performance

The study reveals the experimental group that received metacognitive instruction outperformed the control group to significance.

While the two groups of participants received in-class listening instruction in their regular lessons outside of and during the study, it involved the same amount of listening practice with the same teacher (thus both of these variables were controlled for).

The two groups of learners differed primarily in whether they experienced metacognitive instruction or not.

Given there were no other explicit interfering variables concerning their listening learning in the five listening lessons, it could be argued that the significant difference between the experimental group and the control group in listening scores in the post-test was mainly caused by the metacognitive instruction program. In other words, such findings seem to indicate that the metacognitive approach adopted in the present study was more effective than

traditional methods of listening instruction in promoting Chinese EFL learners' listening performance.

Moreover, the positive effects of metacognitive instruction identified in this study are in line with previous studies (see, for example, Vandergrift and Tafaghodtari, 2010), with the post-learning reflective journals of the experimental group lending further support to the positive effects of metacognitive instruction on learners' metacognitive awareness and confidence. On the other hand, the significant progress of the control group demonstrates that a traditional approach in the listening class should be credited with its own merits. One reason could be that checking answers and teacher's explanation of difficult chunks, if conducted in an efficient manner, could help clarify some of the listening problems learners encounter and achieve a better understanding of the oral texts.

Another reason may be that repeated exposure to the listening material and reviewing the material against the transcripts offers students more chances to attend to some important chunks missed or other confusing parts in the first round listening for one reason or another. Also, there might have been a metacognitive awareness-raising effect for the control group from doing the MALQ prior to the intervention which could have influenced their knowledge of listening and performance scores.

Therefore, it is argued that the traditional approach may possess some facilitating elements in helping learners develop listening performance, such as repeated exposure to the same text type, but it can and should be greatly enhanced with a more systematic procedure for incorporating metacognitive instruction into current listening curriculum. This may not only develop richer metacognitive knowledge about their listening but could also help learners achieve greater learner autonomy in the long term.

Potential Benefits of Metacognitive Instruction

The top five potential benefits of the metacognitive instruction program delineated from the reflective journals written by the experimental group participants in Week 7 provide insights of their understanding of the nature, demand and process of L2 listening as indicated in the following excerpts (excerpts quoted here were translated by the author unless indicated with an asterisk *).

With respect to the first two benefits ('1. I am no longer nervous when I listen to English oral text.' and '2. I am more confident to learn it (English listening) well.'), participants said they were no longer nervous and became more confident and optimistic toward English listening, for instance, when they succeeded in inferring the meaning of unknown words with the help of the general idea of a text or known words as shown in Excerpt 1*. This excerpt also highlighted the participants' knowledge development in terms of listening strategies ('3. I learned some useful strategies in listening.'), which was echoed in Excerpt 2.

> Excerpt 1*:
>
> I become more confident to take listening test after the listening training program. Then, I learned some helpful strategies to use in the process of listening like, having a plan before listening, prediction, guessing the meaning of new words, post-listening reflection and so on. I am happy I have increased almost 10 points to 24 in the last test (Tan).

Excerpt 2:

To understand the listening material, you need to use many different strategies taught by the teacher, like preview contents, listen for main idea, prediction and so on. (Liu)

As for directed attention ('4. I can force myself to listen carefully when my mind wanders.'), most participants reported that they could understand better and score higher when they consciously focused harder on the listening material as shown in Excerpt 3. Participants believed being concentrated and careful while listening could lead them to successful comprehension. Such finding echoes that of Vandergrift (2002), where students' positive responses highlighted the motivational effect of focusing attention on the process as well as the product of listening.

Excerpt 3*:

If I stay focused on the listening material I find I could understand more and my score is much higher (Meng).

Many participants in the experimental group reported that they were more aware of the bad effect of translation after the training program and they were trying hard to get rid of such bad habit as suggested by Teng in Excerpt 4* ('5. I know word by word translation is a bad habit and I am trying to overcome it.'). However, there were still nine students including several low-achieving students who found the deep rooted mother-tongue reliance hard to be rid of. They found mental translation an indispensable listening habit on one hand, yet they were frustrated at its ineffectiveness as indicated in Excerpt 5.

Excerpt 4*:

I benefited a lot from the program, most important of all, I overcame some bad habits like word by word translation while listening (Teng).

Excerpt 5:

I am used to translating what I hear into Chinese and I feel comfortable when I translate. If I do not do so, I easily get anxious and want to give up listening. The problem is when I translate some parts I very often miss more information and my score is still low. I do not know what to do. (Su)

In addition to the top five benefits, participants demonstrated an enhanced understanding of L2 listening in terms of person knowledge, task knowledge and strategic knowledge. As can be seen from Excerpt 6, the participant, Wang, was quite aware of the demand and nature of the listening process. It also emphasizes the participant's perceived difficulty of learning English listening. Perseverance as a key strategy to the success of such a learning process was well highlighted by other participants as indicated in Excerpt 7.

Excerpt 6:

Listening is a slow process as well as a process of gradual accumulation. If you stick to it, you will gain something. (Wang).

Excerpt 7:

Listening is a challenge for me, which needs long term training and repeated exposure to various kinds of listening materials. Success only results from perseverance. (Bai)

Overall, participants' reflective journals provided further support for their strengthened metacognitive awareness and improved understanding of the nature, demand, and the complex process of L2 listening following metacognitive instruction.

CONCLUSION

The study reveals through the MALQ that Chinese non-English major undergraduates have a body of metacognitive knowledge about English learning and L2 listening. In addition, data analysis not only shows participants' improved metacognitive awareness but also demonstrates a stronger effect of metacognitive instruction as compared with the traditional teaching method in improving Chinese undergraduates' listening performance. As one of the first interventions to explore the effectiveness of metacognitive instruction in listening for Chinese undergraduates, the findings of this study seem encouraging for this type of approach to listening instruction in China.

However, there are several limitations with this study. For instance, the number of respondents for the MALQ is comparatively small (N= 90), the metacognitive instruction was only a total of 5 hours in length and self-reports may not reflect what learners actually do. In addition, written reflections were general views of what experimental group learners felt at the end of the study about their listening experience and perhaps collecting their reflections following each of the lessons would have provided more immediate and better insights into their perceptions of listening, as well as their development across the study. Moreover, it is important to recognize that the listening performance of participants of both groups may have been influenced by a practice effect from repeatedly doing CET-4 listening materials throughout the study and also doing other listening practice in their regular listening lessons. Also, outcomes may have been affected by the control group doing more listening practice than the experimental group and also doing the MALQ (which may have had an awareness-raising effect), and all participants being encouraged to do other listening outside the classroom. In future studies like this one, all of these variances need to be controlled for.

Despite these potential influences, it seems that the metacognitive awareness-raising had an impact on the performance of the experimental group for they outperformed the control group to significance. As such, listening instructors in China may consider the integration of various metacognitive awareness-raising activities into their normal listening class for a more principled and systematic approach to listening instruction. This may not only develop learners' richer metacognitive knowledge about listening but could also help them achieve greater learner autonomy in the long term.

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