



# A Study of Metacognitive Strategies Employed by English Listeners in an EFL Setting

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## Abstract

This paper presents a study on the metacognitive strategies employed by English listeners in an EFL setting. The results of the study reveal that the subjects used directed attention most frequently and they used monitoring least frequently. Besides, there are differences in the use of metacognitive strategies between successful and unsuccessful listeners. The differences exist in the use of directed attention, functional planning and self-management strategies. The study proposes that listeners' metacognitive awareness should be cultivated and strategy instruction should be integrated into the teaching of listening.

**Keywords:** Metacognitive strategies, Metacognitive awareness, English listeners, EFL setting

## 1. Introduction

Listening is bearing greater and greater importance in foreign language classrooms. Language acquisition research demonstrates that listening provides comprehensible input for learners and plays a crucial role in language acquisition. Without understanding input at the right level, language learning cannot occur.

On the other hand, listening is a challenging job. Firstly, listening comprehension is a complex process in which the listener must distinguish between speech sounds, understand language and syntax, illustrate stress and intonation, store what was collected in all of the above, and interpret it within the immediate context of the utterance. Coordinating what is mentioned above involves much mental activity on the part of the listener. Secondly, a foreign language learner is confronted with both external problems (e.g. environmental noise and indistinctive speeches) and internal pressures (e.g. lack of motivation, anxiety and distraction) when dealing with listening tasks. Thirdly, listening activities carried out in the listening classroom cast listeners in the role of overhearer. Listening courses which take the form of listening to tapes rob the listeners of making responses, asking for clarification, or taking part in the interaction. In the real communication, listeners seldom play the part of nonreciprocal overhearer. Thus the development of effective strategies for listening becomes significant not only for the ability to understand and participate in spoken communication but also for language acquisition.

In the west, research on learning strategies appeared in the mid 1970s. Research on listening strategies has been done in several aspects: 1) research on several languages (most of them in an ESL setting, but also French, Italian, Russian and Spanish), 2) research on comparing strategy use at several proficiency levels, 3) research on cognitive and metacognitive strategies and 4) research on the relation of strategy use to text, task and setting. But it should be noted that few studies were done in an EFL setting and the size of the sample was small. In China, the study on learning strategies emerged in the early 1980s. Research on effective strategies for listening has been carried out in the following aspects: 1) the relation of learning strategies to listening comprehension, 2) the effect of background knowledge upon the use of listening strategies, 3) the effectiveness of listening strategy instruction and 4) the comparison of strategy use at university student level. It is obvious that the research does not cover a wide area compared with that done in the west. In addition, one point should be pointed out that most of the subjects of the studies were non-English majors. Especially, little research has been done in China concerning what metacognitive strategies listeners use and the differences in the use of metacognitive strategies between successful and unsuccessful listeners. Therefore, this study intends to make an investigation into metacognitive strategies employed by English listeners in an EFL setting.

## 2. Statement of Related Theories

Oxford (1990, p.8) states that "learning strategies are specific actions taken by the learner to make learning easier, faster, more enjoyable, more self-directed, more effective, and more transferable to new situations." It is clear that learning strategies are conducive to language learning. Learning strategies enable learners to respond to the learning situation and manage their learning in an appropriate way and allow learners to take more responsibility for their own learning and become an autonomous language learner.

In light of cognitive theory, O'Malley and Chamot (2001) classified learning strategies into three major types: metacognitive strategies, cognitive strategies and social/affective strategies. Metacognitive strategies deploy use of knowledge about cognitive processes and consist of attempts to manipulate language learning by virtue of planning, monitoring, or evaluating. They serve an executive function. Cognitive strategies mean the steps or operations employed in solving problems that need direct analysis, transformation or synthesis of incoming information. They are directly related to the performance of certain learning tasks. Cognitive strategies play an operative or cognitive processing function. Social/affective strategies display a broad collection that concerns either interaction with another person or ideational control over affect.

Among these three major types of learning strategies, metacognitive strategies lie at a different level. Metacognition is the process that underlies the efficient use of strategies and the essence of intelligent activity (Wenden, 1987, p.573). The term metacognition, first introduced by John Flavell, is often defined as thinking about thinking. Wenden (1987) considers that metacognition includes metacognitive knowledge and regulatory skills. Metacognitive knowledge consists of knowledge about person, knowledge about task and knowledge about strategy. Knowledge about person involves beliefs about one's personal attributes and preferred learning style, knowledge concerning what one knows and does not know and what one can do and cannot do, and a consciousness of one's progress. Knowledge about task means an awareness of the aim and requirements of the task, and an ability to evaluate the information provided and pick out the relevant information. Knowledge about strategy encompasses an awareness of what strategies should be applied according to different kinds of tasks and a general knowledge about language learning. Regulatory skills are further divided into pre-planning and planning-in-action. Pre-planning includes setting goals, choosing materials and methods, evaluating proficiency level and foreseeing the difficulty. Planning-in-action involves strategies such as monitoring, checking outcomes and improving plans. Williams and Burden (2000) contend that metacognition involves two concepts. One is a knowledge about learning, the other is an ability to use cognitive strategies smartly. Knowledge about learning includes a knowledge of mental processes and a knowledge of the self. A knowledge of the self refers to an understanding of one's feeling, motivation, attitudes, personality and learning style and an awareness of the manner in which these factors influence the use of cognitive processes.

In this study, we hold that metacognition contains two concepts: metacognitive knowledge and metacognitive strategies. Metacognitive knowledge covers knowledge about person, knowledge about task and knowledge about strategy. Metacognitive strategies refer to an ability to manage and regulate the use of suitable learning strategies for different tasks, including such strategies as planning, monitoring, or evaluating. This indicates that a language learner is able to evaluate the learning situation, to make plans, to choose suitable skills, to sequence them, to coordinate them, to check their effectiveness and to change the plan when necessary. Metacognitive knowledge and metacognitive strategies form a reciprocal relationship. Metacognitive knowledge is a necessary step in learning to manage learning and metacognitive strategies are the actual deployment of metacognitive knowledge.

### **3. Research Design**

#### *3.1 Research Questions*

It is widely accepted that teaching students everything they want to learn is impossible. The most important thing for students to do is learning to learn. In this process, metacognition plays a key role. An awareness about learning and an ability to regulate learning help learners to acquire the skills of self-directed learning and become an autonomous language learner. Accordingly, examining listeners' use of metacognitive strategies may help teachers have a better understanding of listeners' metacognitive awareness and allow learners to find an effective approach to obtaining success in listening tasks.

This study aims to address the following research questions:

1. What are the metacognitive strategies employed by English listeners in an EFL setting?
2. Are there any differences in the use of metacognitive strategies between successful and unsuccessful listeners?

#### *3.2 Subjects*

The subjects chosen for this study consisted of 160 English sophomores with an average age of 20. They were from four intact classes of a Chinese University. After two years of study, subjects have got used to university study and formed their own learning strategies. In addition, careful preparation for Test for English Majors Grade 4 (2007) made them hold a positive attitude towards the investigation.

Depending on subjects' raw test scores of the listening section of Test for English Majors Grade 4 (2007), the study divided subjects into three groups. The top group was thirty-six subjects with the highest scores. The bottom group was thirty-five subjects with the lowest scores. The study defined the top group as successful listeners and the bottom group as unsuccessful listeners with the purpose of comparing the differences in the use of metacognitive strategies (see Table1).

Insert Table 1 Here

### 3.3 Instruments

The data were collected using three separate instruments: the listening section of Test for English Majors Grade 4 (2007), a written questionnaire and Statistical Package for Social Sciences 11.0.

Test for English Majors Grade 4 (TEM4), provided by National Testing Service of China, is a scientific and effective means for evaluating English teaching efficiency and English learners' language proficiency, which contains following sections: writing, listening, cloze test, grammar and vocabulary, reading comprehension and speaking. Concerning listening, it consists of dictation, statements, short conversations and news. This authoritative test is taken by most of English learners in Chinese universities.

The questionnaire was self-designed with reference to the questionnaires of Su (2003), Wen (1996) and O'Malley and Chamot's classification of metacognitive strategies (2001). It addressed two areas: 1) listeners' personal background and 2) use of metacognitive strategies. In the questionnaire metacognitive strategies involve seven independent strategy types: planning, monitoring, evaluation, selective attention, directed attention, functional planning and self-management. Responses to independent strategy types are designed on a five-point-scale. In order to check whether there were problems in the questionnaire like the range of listening strategies, wording, sequencing, instructions and format and the duration of the investigation, three pilot studies and face-to-face talks with a small number of English majors were manipulated.

Statistical Package for Social Sciences 11.0 was used to analyze the data collected from the study. Statistical Package for Social Sciences is a comprehensive and the most commonly used computer software that can handle complex analyses of large amounts of data in a very short time. The study utilized Statistical Package for Social Sciences 11.0 to find out: 1) the metacognitive strategies used by the subjects, 2) the differences in the use of metacognitive strategies between successful and unsuccessful listeners.

### 3.4 Data Collection

The investigation was conducted in three intact classes in a Chinese university, which adopted a person-administered mode. The researcher as an organizer participated in the whole process of the investigation with the help of her colleagues. All four data-gathering sessions were carried out in the subjects' own classrooms during regular class-time in order to minimize the impact of the environment. Subjects were informed that their responses would not influence their learning and confidentiality was guaranteed 100%. Almost all the subjects participated, producing a response rate of 99%.

### 3.5 Data Analysis

The questionnaire was analyzed by grouping items by area of assessment. The subjects' responses to each item were tallied. Then each item was considered within the group of items that addresses a specific category. Finally, the means of all the subjects' responses to each group of items were calculated by SPSS. The mean supplies information on the average performance of all the subjects' metacognitive strategies and inform the researcher about how subjects as a whole performed.

In addition, T-test was employed to detect the differences between successful and unsuccessful listeners in the use of metacognitive strategies. T-test is an analysis technique that compares the means of two groups. It is helpful to determine the researcher's confidence about the fact that the differences between the two groups as a result of strategy use are not due to chance.

## 4. Results and Discussion

### 4.1 Metacognitive Strategies Employed by English Listeners

Means and standard deviations are calculated by SPSS to find out how subjects as a whole performed concerning metacognitive strategies. The results are displayed in Table 2.

Insert Table 2 Here

As shown in Table 2, the mean of the responses to directed attention by all the subjects is the highest (i.e. 3.91 on a five-point scale). The means of the use of selective attention and self-management by the subjects are higher (i.e. 3.61, 3.55). The mean of the use of monitoring by all the subjects is the lowest (i.e. 2.58).

In the category of metacognitive strategies, directed attention, selective attention and self-management are frequently used. This denotes that listeners realize the importance of attention and attempt to look for more opportunities to practice listening outside the class. O'Malley et al. (1989) reported that in perceptual processing listeners used attentional strategies to maintain their concentration on the task.

However, planning, evaluation and functional planning are sometimes used. Monitoring is rarely used. Metacognitive

strategies mirror listeners' learning awareness and learning beliefs. The results show that directed attention, selective attention and self-management are conducive to successful listening in the eyes of listeners. Planning, evaluating, functional planning and monitoring are not effective enough. Or listeners have a good command of directed attention, selective attention and self-management and a poor mastery of planning, evaluating, functional planning and monitoring. Before listening to some material, an instructor usually informs learners that they should attend to a listening task and ignore distractions and they should fix attention on specific aspects of the listening material by looking for key words and topic sentences. At the end of the listening class, the instructor reminds learners of more listening practice and previewing. It is natural for listeners to skillfully employ these strategies—directed attention, selective attention and self-management in their listening.

Besides, this shows that listeners' learning is not independent but instructor-centered. Planning, monitoring, evaluating are characteristics of self-directed language learning. The literature on self-directed language learning unanimously believes that self-direction requires learners to be able to plan, monitor and evaluate their language learning, which aims to promote learner autonomy. The low means of the responses to planning (mean=3.25), monitoring (mean=2.58) and evaluation (mean=3.20) indicate that learners have not taken responsibility for their own learning and they lack the spirit of learning independently and creatively. Learner autonomy is absent in listeners. In addition, the low mean of the use of functional planning (mean=3.10) suggests learners' lack of awareness that listening is interconnected with other aspects of learning such as speaking, reading and writing. Only when all skills are well developed can listening proficiency be enhanced.

#### *4.2 The Differences in the Use of Metacognitive Strategies Between Successful and Unsuccessful Listeners*

T-test was used to detect the differences in the use of metacognitive strategies between successful and unsuccessful listeners. The results of the test are shown in Table 3.

Insert Table 3 Here

According to Table 3, there are differences between successful and unsuccessful listeners in the use of metacognitive strategies. The differences lie in the use of directed attention, functional planning and self-management.

On the basis of the results of T-test, it is easy to work out the reason why some listeners are more successful. Successful listeners are better at the use of directed attention, functional planning, self-management and evaluation. In order to realize effective task execution, successful listeners are aware of the importance of attention. They ignore irrelevant distractions during listening. In so doing, listening input is picked out of various upcoming stimuli, which guarantees the sufficient provision for working memory. What's more, successful listeners plan for and rehearse linguistic components necessary to carry out successful listening. They get themselves familiar with phonetic knowledge and practice imitation to make the pronunciation standard. They read extensively to review grammar, enlarge vocabulary and enrich background knowledge. All of these are closely connected with successful listening. Meanwhile, successful listeners are characterized by learner autonomy. They are conscious enough to understand the conditions that help them to learn and arrange for the presence of those conditions. Hence, they actively establish optimum conditions helpful to listening outside the class. They find a way to successful listening and work independently without supervision and direction from their teachers. They view learning as something they do for themselves.

We also have a clearer picture of the strategies used by successful listeners and unsuccessful listeners respectively. Results display that successful listeners frequently use directed attention, self-management, selective-attention, functional planning and evaluation. Unsuccessful listeners regularly apply selective attention and directed attention. It should be found out that both successful and unsuccessful listeners believe that attention is important in the process of listening. Secondly, both of them are short of the knowledge of planning and monitoring. This reflects that listeners are unable to propose appropriate strategies for handling an upcoming task and check their comprehension or performance while a listening task is occurring. Thirdly, the means of the use of planning, monitoring, evaluation, functional planning and self-management by unsuccessful listeners are lower (<3.30). This proves that unsuccessful listeners seriously lack metacognitive knowledge. The lack of metacognitive knowledge may be illustrated from the following two perspectives.

If what goes on in many a listening classroom is observed, the answer to the lack of metacognitive knowledge is clear. In an ordinary listening class, the teacher usually chooses the listening textbook and other listening materials for the listeners; the teacher makes decisions on a program; the teacher plans the lesson; the teacher conducts listening activities; the teacher checks and evaluates listeners' work. In a classroom where the listeners' role is that of a recipient, there is a powerful 'covert curriculum' at work. It shapes listeners' expectations about listening and their own role in it. It prescribes the subjects, textbooks, routine of listening. In a teacher-centered class an easy perception to shape is that learners are conceived to be passive. It is not difficult to see why directed, regulated, passive listeners lack metacognitive knowledge. Listeners are convinced that all they have to do is to attend a listening course and do as required. Listeners sit in the classroom, teachers do their jobs and learning takes place.

The other factor that may account for the lack of metacognitive knowledge is the difference between high schools and universities. In high schools, many teachers tend to guide learners' learning by informing them of what, when and how to learn. In universities, learners are on their own to decide what, when and how to learn. Another difference is that high school teachers often spend considerable time attempting to motivate learners to learn, whereas university teachers generally expect learners to be self-motivated. If learners are unaware of the differences, they are likely to accept the view that the job of the teacher is to teach, transmit, regulate and evaluate and that of the learner is to receive and absorb. Therefore, it is necessary to change the listeners' wrong view on the role of the teacher and the learner and let listeners acquire the ability to take on more responsibility for their learning by strategy instruction.

## 5. Conclusions and Suggestions

The results of the study reveal that directed attention, selective attention and self-management are often used and planning, evaluation and functional planning are sometimes used and monitoring is rarely used in the category of metacognitive strategies. Besides, there are differences in the use of metacognitive strategies between successful and unsuccessful listeners. These differences exist in the use of directed attention, functional planning and self-management strategies.

Based on the findings of the study, suggestions concerning the cultivation of metacognitive awareness are made to the listeners and teachers. First, instructors should teach what metacognition is and what role metacognition plays in learning. This helps listeners to have a comprehensive system of knowledge about listening tasks and listening strategies and think about personal factors that may facilitate or impede listening. Second, instructors should carry out activities where listeners are given opportunities to practice metacognitive strategies.

One activity to practice metacognitive strategies is to hold discussions about strategy use in the listening classroom. Here strategy use involves the use of two kinds of strategy. One is concerned with strategies employed in learning listening in general, the other is related to strategies used in a particular listening situation. For the first type of discussion, certain time may be arranged for listeners in class. Discussions may center on such topics as "how I develop listening," "how I improve my listening proficiency outside class," "the best way to understand spoken English" and "what impairs listening." Listeners are encouraged to exchange their thoughts and beliefs with each other and apply new strategies in their own learning. After a period of time, similar discussions will be held and listeners share their experiences and check the effectiveness of the strategies.

The second type of discussion may be woven into the pre-listening and post-listening activities. In the pre-listening activity, listeners not only brainstorm knowledge related to the present topic, but also brainstorm strategies conducive to the handling of the upcoming task. After doing this, listeners may discuss with their partners the strategies they will use and the difficulty they will meet. In the post-listening activity, listeners review the usefulness of the strategies they have employed as well as reinforce their understanding about the material they have heard. By doing so, listeners are motivated to think about the process of listening. In fact, they are learning to learn listening on their own part. Consequently, their metacognitive awareness about how to learn listening will be cultivated gradually.

Another activity to practice metacognitive strategies is using a checklist of listening strategies. Teachers may prepare a list where listening strategies are written down. Each time the listening task is over, listeners are told to reflect upon their strategy use before listening and during listening by putting a tick beside a strategy item. Also, listeners are encouraged to assess the appropriateness of their strategy use. Finally, listeners are prompted to make plans to improve their performance next time. This method is suitable for introverted listeners who are reluctant to speak out in discussions.

Needless to say, there are limitations concerning the study. For example, all the subjects are from the same university and the questionnaire is self-designed. So a replicated study may be conducted in similar conditions to test the validity of the findings of the study. In addition, the research method for investigating metacognitive strategies should be improved. This study adopted a written questionnaire, which may make subjects overestimate or underestimate the frequency of use of certain strategies. To complement this weakness, other research methods like oral interviews and verbal report may be added to obtain a more accurate strategy description. However, it is assumed that the study may provide a truthful description of metacognitive strategies used by English listeners and offer helpful suggestions to the teaching of listening and the improvement of listeners' abilities in an EFL setting.

## References

- Goh, C. (1997). Metacognitive awareness and second language listeners. *ELT Journal*, 51(4), 361-369.
- O'Malley, J. M., & Chamot, A. U. (2001). *Learning strategies in second language acquisition*. Shanghai: Shanghai Foreign Language Education Press.
- O'Malley, J. M., Chamot, A. U., & Kupper, L. (1989). Listening comprehension strategies in second language acquisition. *Applied Linguistics*, 10(4), 419-437.

- Oxford, R. L. (1990). *Language learning strategies: What every teacher should know*. New York: Newbury House.
- Su, Y. L. (2003). On the teachability of listening learning strategies. *Modern Foreign Languages*, 26(1), 48-58.
- Vandergrift, L. (1999). Facilitating second language listening comprehension: Acquiring successful strategies. *ELT Journal*, 53 (3), 168-176.
- Wen, Q. F. (1996). *English learning strategies*. Shanghai: Shanghai Foreign Language Education Press.
- Wenden, A. (1987). Metacognition: an expanded view of the cognitive abilities of L2 learners. *Language Learning*, 37(4), 573-597.
- Williams, M., & Burden, R. L. (2000). *Psychology for language teachers*. Beijing: Foreign Language Teaching and Research Press.

Table 1. The division of subjects

Name of the group	Raw test score	Number of the subjects
The top group	20—24	36
The mid-group	15—19	89
The bottom group	9---14	35

Table 2. Means and standard deviations: subjects' use of metacognitive strategies

Category of metacognitive strategies	Number	Mean	Std. Deviation
Planning	160	3.25	2.12
Monitoring	160	2.58	2.40
Evaluation	160	3.20	2.00
Selective attention	160	3.61	2.54
Directed attention	160	3.91	3.28
Functional planning	160	3.10	2.98
Self-management	160	3.55	3.02

Table 3. T-test: Differences in the use of metacognitive strategies between successful and unsuccessful listeners

Variable	Mean of the top group	Mean of the bottom group	Mean difference	T-value	Sig.
Planning	3.26	3.14	.12	-.623	.543
Monitoring	2.82	2.68	.14	-.643	.553
Evaluation	3.39	3.12	.27	-1.179	.241
Selective attention	3.90	3.70	.20	-1.032	.263
Directed attention	4.10	3.34	.76	-2.931	.010
Functional planning	3.71	2.94	.77	-2.942	.009
Self-management	3.97	3.12	.85	-3.792	.000