

# Metacognitive Strategies in a Multimedia Perspective

## -- A Case Study of College English Listening Class

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### Abstract

Listening strategies can improve learners' listening comprehension ability. Metacognitive strategies are the key factors that affect the listening comprehension process of college students in English. Based on multimedia perspective, we hope to clarify the current situation and problems of metacognitive strategies affecting the listening process by studying this paper, and propose targeted strategies to improve listening ability in this educational environment to help improve the current situation of poor listening level of college students and improve their core competitiveness.

### Keywords

**Multimedia; Metacognitive strategy; Listening.**

## 1. Introduction

Listening comprehension plays a crucial role in foreign language learning, and the issue of how to effectively improve listening skills has received widespread attention in the face of increasing international communication. Researchers generally agree on the importance of independent learning and emphasize the key role of metacognitive strategies in improving independent learning as a hot topic in educational reform. Therefore, this paper investigates the influence of metacognitive strategies on college students' English listening in three aspects: planning, monitoring and regulating. A sample of 100 college students were surveyed by means of a questionnaire to investigate the problems and current situation of college students' use of metacognitive strategies to regulate the listening process and propose solutions in order to make practical suggestions for listening learning in a multimedia environment.

## 2. Research Status

### 2.1. Current Situation of Multimedia Teaching Mode

Due to the growing number of university classes, the traditional single teaching method of teachers relying on chalk and blackboard is becoming more and more obsolete, so the traditional teaching mode must be changed. The new teaching mode is supported by modern information technology, which makes English teaching not restricted by time and place, and develops in the direction of personalized learning and self-help learning. The change of teaching mode is accompanied by the change of students' learning mode, i.e. students are required to master personalized learning methods and improve the metacognitive ability of independent learning. With the continuous promotion of computer multimedia and network technology, the use of metacognitive strategies to learn English is becoming increasingly popular among teachers and learners. The novel multimedia technology has entered the classroom with its rapidity of information transmission, diversity of content forms, and convenience of knowledge updating, making a breakthrough in the limitations of traditional classroom teaching and providing a strong guarantee for improving teaching quality. At the same time, some scholars

believe that although there are many advantages of using multimedia teaching, many problems have also emerged.

## 2.2. Current Status of Metacognitive Strategy Research

Metacognition first appeared in J.H. Flavell's book "Cognitive Development". As early as the last century, foreign scholars have recognized the importance of metacognitive learning strategies and conducted research on how they can monitor the learning process and assess the learning results to regulate language behavior. In the practical application of language teaching in foreign countries, teaching models involving metacognitive theory have been more widely used. In China's foreign language teaching community, research on metacognitive strategies has gradually attracted attention, and its research on improving listening skills has also begun to bear fruit. Some scholars believe that it is not enough to master a foreign language only by classroom learning, but by a lot of practice and self-study. In view of the serious tendency of exam-oriented education in foreign language teaching in China, students have few opportunities to learn actively, so the cultivation of metacognitive strategies in college English teaching is crucial for students' foreign language learning.

## 3. An Investigation Study On The Use Of Metacognitive Strategies In College English Listening Classes

### 3.1. Research Design

In this study, a questionnaire was used to investigate the use of metacognitive strategies in listening comprehension by college students from three aspects of metacognitive learning strategies, with four multiple-choice questions for each strategy and one semi-open-ended question, totaling 17 questions. Each multiple-choice question was divided into five dimensions and positively ranked, and the respondents were surveyed using a five-point Likert scale, with the degree of realization decreasing from "always do this" to "never do this". The open-ended questions were used to explore which multimedia formats college students use to practice listening and to provide ideas for possible solutions to the problem.

### 3.2. Survey Subjects

The subjects of this study were 100 college students from 10 universities, including 50 freshmen and 50 sophomores each. We selected college students at this stage because freshmen and sophomores in each school attend college English classes, and teachers may teach students some listening learning strategies such as metacognitive strategies in class, and a significant number of college students consciously train their listening skills in the process of preparing for the College Test Band 4 and 6. They may unconsciously use a certain learning strategy in their listening learning, but they do not have systematic scientific knowledge, which leads them to use the strategy poorly. Therefore, this questionnaire explores the current situation of college students' conscious or unconscious use of metacognitive strategies to improve their listening skills by asking them about their use of learning strategies and skills in three stages of the listening process, including pre-listening, while-listening, and post-listening.

### 3.3. Findings and Analysis

The so-called metacognitive strategy refers to the cognitive strategy of cognition, in other words, the individuals know what they are thinking, what they are doing, how well they are doing and their emotional experiences. The metacognitive process is actually the process of guiding and regulating people's cognitive process and selecting effective cognitive strategies for control and execution, which is in essence a person's self-awareness and self-control of cognitive activities. Metacognitive strategies include planning strategies, monitoring strategies and regulating strategies. In this survey, we investigate how students set learning goals before

listening, how to use learning skills during listening, and how to review effectively after listening corresponding to the three strategies of planning, monitoring, and regulating.

### 3.3.1. Pre-listening

Listening is a specific reflection of the language that we produce, and a good pre-listening strategy will make our whole listening process extremely efficient. Before listening, students need to make speculations about the important and difficult points of the listening content and to preview the listening questions in order to make connections with the listening-in phase thereafter. According to the questionnaire, only about half of the students make a clear listening plan and think about their listening knowledge from time to time, while another group of learners says that they only complete the task when the teacher explicitly assigns it. This group of learners mistakenly believes that language learning is only possible in the traditional classroom, where the teacher is in charge and students must follow the teacher's lead, and they are indifferent to, or even resistant to, a student-centered model that fosters independent learning. In the learning stage, most teachers teach the listening skill of pre-listening prediction, so 85% of students have this ability, but unfortunately, most students, despite knowing this skill, cannot apply it well. The listening section of the CET 4 and 6 exams only gives answer options, not questions, so students need to make choices based on the recording during the listening process, which requires a high level of ability to browse questions and make assumptions in advance. So from the data it is clear that most students have this ability. This displays that the learners' preparation in the pre-listening stage is still lacking, which requires the teacher to set a good pre-listening task in advance in order to help students develop good pre-listening habits.

### 3.3.2. While-listening

The while-listening stage is the most important stage in the listening process and directly determines whether the learner can successfully complete the listening task. This stage requires learners to understand the meaning of a sequence of sounds and to have the corresponding images in their minds. Monitoring strategies can help students to use listening skills to monitor their listening level. 85% of the learners were able to understand the content and complete the task as well as possible, while only 2% of the learners were slightly below the average level of the learners at that level. In addition, about 42% of the learners reported that they were able to use various listening strategies flexibly and make timely adjustments according to the difficulty of the material, while the rest of the learners may have used the strategies unconsciously without realizing it, which is related to the lack of systematic teaching of listening strategies in the past, so in order to compensate for this lack, teachers can highlight the construction of learning strategies for students. The inevitable occurrence of new words was met with different attitudes by different learners, but fortunately, almost all of them agreed that they should skip the words they encountered in order to avoid affecting the rest of the content. When a large section of content is unintelligible, how to guess the content based on only the key words is also one of the criteria to measure learners' listening skills. 80% of learners can make predictions. According to Krashen's input hypothesis, when learners are exposed to "comprehensible input", reasonable guesses can help learners get a general overview of the entire listening material and help them understand it.

### 3.3.3. Post-listening

If learners do not know how to evaluate the effectiveness of the learning process and the significance of the results, they often do not adjust themselves when unexpected situations and setbacks occur. Timely and effective post-listening review assessment can help learners consolidate their memory, deepen their understanding and refresh their knowledge. 87% of learners are able to assess the difficulty of the material and check their correctness against the reference answers, but 59% of learners are unable to identify their shortcomings, analyze the

causes and make adjustments. This group of learners often assess themselves based on the listening material itself, and they are seldom able to analyze the reasons for their errors in the context of their previous listening training, which largely limits the improvement of learners' listening skills. When they encounter doubts, few learners will immediately ask their teachers or classmates, part of the learners are so afraid of their teachers' criticism that they dare not ask their teachers questions, another part of the learners are afraid of losing face, they would rather not do the questions than ask their teachers or classmates, they often choose to consult the information themselves to answer questions and solve problems. In response to this situation, teachers should strengthen the classroom culture of solidarity and unashamedly asking questions. However, many learners do not make a listening learning plan, and even if they do, they cannot check whether they have accomplished their listening goals based on their completion. So teachers should often guide students to reflect on their learning and identify gaps in their learning in time.

#### **4. Implications and Recommendations**

Waters, Wen, and others have shown that what unsuccessful second language learners lack is not knowledge of language learning skills, such as guessing, association, and reasoning, but rather the intrinsic language learning skills that are necessary for successful language learning, such as self-awareness and macro-regulatory skills. Cohen's research shows that the fundamental difference between successful and unsuccessful learners lies not in the use of strategies, but in the appropriateness and flexibility of the strategies used. Successful learners are able to select the most appropriate strategies for problem solving, flexibly adapt them to the situation, and monitor their effectiveness. Integrate metacognitive strategy training with foreign language learning activities, linking and using the strategy in the process of task training.

##### **4.1. Developing Self-directed Learning Skills**

The development of self-directed learning is generally based on a strategy development model, such as the Strategic Teaching Model proposed by Jones et al in 1987 and the Cognitive Professional Language Learning Model demonstrated by Chamot and O'Malley in 1994. Self-directed learning builds learning on the objectivity, passivity, and dependency of the human being, and requires the learner to change his or her role from that of a passive learner to an active recipient of knowledge. Learners are required to know why they learn, how they learn, and how they evaluate the results of their learning. Learners can ① clarify the causes of learning ability and motivate learning; ② clarify learning goals and make learning plans; ③ correctly understand setbacks and failures and develop self-confidence and a sense of achievement; ④ learn to reflect and summarize and objectively evaluate themselves. At the same time, teachers should teach students to learn how to learn, how to self-strain and regulate their learning strategies, and master self-planning and self-management of their learning goals, so as to lay the foundation for students' continued and efficient learning in the future and provide assurance for their personalized development.

##### **4.2. Using Multimedia to Improve Students' Metacognitive Ability**

In the traditional foreign language teaching mode, teachers and textbooks are the only sources of students' knowledge due to the single teaching method and teaching aids. Over time, students' way of thinking becomes single and unconventional, and they trust the authority of the teacher completely. However, the multimedia network teaching mode has completely reversed this situation. This advanced teaching mode not only provides students with more convenient learning opportunities, but also rich network teaching resources and high-quality, efficient and personalized courses have greatly improved the adaptability of foreign language teaching. Computer multimedia technology can provide vivid and colorful text, sound and

images to stimulate learners' five senses and maximize their sense of independent participation. After having a good external teaching environment, teachers should guide students to master metacognitive learning strategies, plan their study, monitor their listening situation, and make timely adjustments according to the actual results. At the same time, students should be guided to actively explore ways and means to solve problems and stimulate their desire to learn, so that the advantages of multimedia teaching in college English can be realized.

## 5. Conclusion

English listening comprehension is an extremely complex psychological process, and the teaching mode supported by multimedia technology has injected new vitality and ushered in new challenges for college English listening learning. In this paper, we have studied the methods and strategies for improving English listening comprehension in this educational environment to help improve the current situation of poor English listening skills, which can in turn better improve the efficiency of college English listening learning, promote the overall positive development of college students' comprehensive quality ability, and improve the core competitiveness of college students. How to help learners use good metacognitive strategies in the listening comprehension process and improve learners' planning, monitoring and regulating abilities all require continuous exploration and research from multiple perspectives in the future.

## References

- [1] Chang Peng Yun, Hao Mei, Lawrence Jun Zhang. The effect of metacognitive strategy teaching method on English listening strategy use and listening style[J]. Foreign Language,2016(03):81-88.
- [2] Chen Jiayu. The application of metacognitive theory in multimedia foreign language listening teaching[J]. Foreign Language Research,2005(01):44-46.
- [3] Cohen, A.D. Strategies in Learning and Using a Second Language[M]. New York: Addison Wesley Longman Limited. 1998.
- [4] Deng Xinghui. Foreign language teaching based on multimedia perspective[J]. Foreign Language and Foreign Language Teaching,2003(09):28-30.
- [5] Frank Otto. Computer-Assisted Instruction: Trends and Issues in Language Teaching. Deseret Language and Linguistic Society Symposium. Vol.5, No.1
- [6] He Lianzhen. Self-directed learning and the development of its ability[J]. Foreign Language Teaching and Research, 2003, (04): 287-289.
- [7] Huang Wanbing. The current situation and countermeasures of multimedia teaching in university English [J]. Contemporary Education Forum, 2009(03):58-60.
- [8] Ji Kangli. The training of metacognitive strategies in foreign language learning[J]. Foreign Language,2002(03):20-26+14.
- [9] Li JH, Chen JN. The current situation of multimedia teaching and thinking[J]. Science and Technology Information,2020,18(33):3-5.
- [10] Li P. On the development of English multimedia teaching mode and students' metacognitive ability[J]. Foreign Language and Foreign Language Teaching,2005(05):28-31.
- [11] Mingyu Tang. Research on Literature Teaching Assisted by Computer Multimedia Technology. Materials Science and Engineering. Volume 569, Issue 5.
- [12] Nunan. D. Strategy training in the language classroom: An empirical investigation. REIC journal. 1997, 26: 56-81.

- [13] Wang Duqin. Cultivation of independent learning ability in college English [J]. Foreign Language, 2002 (05): 17-23.
- [14] Zhang Tianyu. English learning strategies and independent learning[J]. Foreign Language Teaching, 2005, (01): 49-55.
- [15] Zhu Han. An empirical study on the use of metacognitive strategies in college English listening teaching[J]. Journal of Hubei Institute of Science and Technology, 2021, 41(04): 143-147.