



Cognitive-Strategy Based Method Vs. Metacognitive-Strategy Based Method: The Impact on Listening Comprehension

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Abstract

The ability to speak English is very important, but it will not be successful without being supported by the ability to listen to understand the verbal language. The poor listening skills of the English Education students at Tadulako University in the final exam of *the Listening for General Communication* course became the basis for conducting this study. The results of the test showed that around 80% students failed the course with percentage intervals of comprehension levels of 0-39%. Therefore, this study is carried out to specify if using Cognitive-Strategy Based Method and Metacognitive-Strategy Based Method is effective in improving the participants' listening comprehension as well as to compare the effectiveness of the two strategies. This study applied experimental design involving 80 samples evenly distributed in two classes. One class was instructed using Cognitive strategy, while the other one was taught using Metacognitive strategy. Results of data analysis demonstrated that both the Cognitive and Metacognitive strategies effectively improve the participants' listening comprehension. There is no significant difference in terms of the effectiveness of both strategies in improving listening skills of the participants. In practice, they support each other resulting in learners better listening comprehension.

Keywords: *Cognitive-Strategy Based Method, Listening Comprehension, Metacognitive-Strategy Based Method*

Introduction

The ability to understand verbal language plays an important role in learning and using a language, whether as a second, foreign or additional language. The better a person's listening ability, the more successful and satisfied he/she is (Sadiku, 2015). If learners want to learn speaking skills, they must first learn to understand verbal language. Furthermore, if the learners want to communicate with native speakers of the language being learned, they must first understand what the native speakers are saying, who in various real-life situations cannot control the style, pronunciation, speed and idiomatic expressions used.

Listening is not just listening to sounds. It is another requirement in language. It becomes a bridge in learning speaking, reading and writing skills. When someone is learning a second or foreign language, he or she is supposed to listen first, then speak and finally read and write. Listening is the skill that most often used in language classes

to gather information, share, understand the surrounding environment and develop personality. Every day people spend 45% of their time for listening (Solak & Erdem, 2016; Hamouda, 2013). It means, listening is an important tool in learning and developing other language skills.

Listening is a combination of listening to what the speaker says and psychological involvement with the speaker. It is the means by which learners obtain most of the information about education, knowledge of the world and relationships between people, their ideas, values and appreciation. Listening is the basis for all aspects of language and cognitive development and plays a major role in the communication process. Therefore, listening activities are not only intended to obtain the content of the message but also to understand the information.

Clearly, listening is not an easy language skill to master because there are many things the language learners cannot control while listening. For example, they cannot control the speed of the speakers in audio they are listening to. The complexity is reflected in the final exam scores obtained by the 42 students who enrolled in *Listening for General Communication* course. The results of the test indicated that around 80 percent of the students were failed with percentage intervals of comprehension levels of 0% - 39%. In other words, the students' listening comprehension skills is relatively low.

This finding then arises a question, what factors causing the students' poor listening skills? Mahbubah et al. (2019) reported that low vocabulary mastery makes it difficult for language learners to comprehend the key aspects of listening. Besides, internal factors such as psychological condition, motivation, listening proficiency and external factors like learning environment, practice opportunities, speech rate, accent and pronunciation (Kristantiningsih, 2023; Chang, 2016) contribute to the challenges in listening.

For that reason, this study applies Cognitive and Metacognitive-Strategy Based Method to determine their impact on students' listening skills. The Cognitive-Strategy Based Method (MSBM) involves the use of language to make it easier to understand. This strategy requires conscious and active use of mind to solve listening problems. It helps learners monitor and control their thinking processes, identify lack of understanding, and connect background knowledge to listening material (Bao & Guan, 2019). It involves the use of senses to take the smallest blocks of language and build them towards meaning.

Metacognitive-Strategy Based Method (McSBM) is used to manage, plan and evaluate the use of the cognitive strategies. Students are trained to gain overview of listening strategies, focus on control of the strategies and monitor the strategies (Fathi & Hamidizadeh, 2019). Listening is a very complex and interactive process. Therefore, the success of listening to a large extent depends on the use of metacognitive strategies (Zheng, 2018). In other words, with this strategy the listener is asked to plan a learning, think about the ongoing process of learning, monitor production and dynamically understanding and evaluate learning after completion of an activity.

Previous research has documented that both cognitive and metacognitive strategies positively affected students' listening comprehension. The cognitive strategy is effective in improving listening performance (Manihuruk & Sidabutar, 2020), while the metacognitive strategy not only improves the students' listening proficiency and metacognitive awareness but also reduces listening anxiety (Movahed, 2014; Whitehead, 2020). However, there is no previous research comparing the effect of both strategies on listening comprehension.

To fill this literature gap, an investigation is necessary to carry out to get better understanding about the implementation of cognitive and metacognitive strategies in listening class and its implication toward teaching and learning of listening skills. Therefore, this study aims to compare the effect of using Cognitive-Strategy Based Method and Metacognitive-Strategy Based Method on students' listening comprehension. A research questions addressed in this study is that, "which method is more effective in improving the students' listening skills?"

Research Methods

This study applied a quantitative approach, that is experimental study, especially a quasi-experimental research design. Two classes were involved with 40 students each class. The participants were the freshmen majoring in English Education at Tadulako University. They enrolled in the *Listening for Information and Leisure* course in semester 2. These participants were selected using a random sampling technique called cluster random sampling technique.

This study involves two variables – dependent variable and independent variable. The dependent variable is a variable that depends on another variable that is independent variable. It changes in response to the independent one. Therefore, the dependent variable of this study is the students' listening comprehension. In contrast, the independent variable is the one the researcher manipulates and controls. It affects the dependent variable. Thus, the independent variable of this study is Cognitive-Strategy Based Method and Metacognitive-Strategy Based Method.

To analyze data of the research, three steps were taken. Firstly, the participants were administered a pretest in order to specify their prior listening skills. Next, they were given two different interventions; one class was taught using Cognitive-Strategy Based Method, while another class was taught using Metacognitive-Strategy Based Method. The intervention was performed in six meetings, 150 minutes/meeting. Thus, the intervention spent 900 minutes or 15 hours. Last, a posttest was administered to determine the effect of the intervention on the participants' listening comprehension.

In the cognitive strategy the students were instructed using some strategies, including making predictions to the text context, guessing the meaning of unfamiliar words, making inferences of unstated information and taking notes and using contextual cues to help comprehend the text. Meanwhile, in the metacognitive strategy they were trained to check the progress, comprehension and production of the tasks, assess the accomplishment, evaluate their comprehension and decide which strategies are effective for the next listening tasks.

Data obtained from both the pretest and the posttest were analyzed statistically using arithmetic formulas suggested by Arikunto (2013). Several steps were taken when analyzing the data as adapted from Mertosono et al. (2020). First, students individual scores of two classes on both tests were tabulated. Second, mean score was analyzed to determine the significant difference between the tests resulting from the intervention given. Last, analysis of calculated t was done for testing differences between the means of two groups.

Findings

The results of data analysis indicated that there was significant difference between the scores obtained on the pretest and the posttest using both the Cognitive-Strategy Based Method and the Metacognitive-Strategy Based Method. The highest and the lowest score on the posttest resulting from the intervention of the cognitive strategy was 90 and 40 (see appendix 1), while the metacognitive strategy was 94 and

36 (see appendix 2). The differences undeniably affect the mean scores. The difference in means of was 11.02 and 13.07, respectively.

After using the t-test formula with a significance level (ρ -value) of 0.05 and degree of freedom (df) of 39, it was found that calculated t was 9.42 for the Cognitive-Strategy Based Method and 9.40 for the Metacognitive-Strategy Based Method. Tabulated t for df (39) is 1.685; therefore, the calculated t is higher than the tabulated t . In other words, using the Cognitive-Strategy Based Method and Metacognitive-Strategy Based Method can improve participants' listening comprehension. The summary of the differential test results (test t) is shown below.

Table 1. Differential test results (test t)

	Cognitive	Metacognitive
N	40	40
df (N-1)	39	39
MD	11.02	13.07
SS	6987	322.95
Calculated t	9.42	9.40
Tabulated t (one-tailed)	1.685	1.685

Discussion

This research aims to determine and to compare the effectiveness of the Cognitive-Strategy Based Method and Metacognitive-Strategy Based Method in improving the students' listening comprehension. The results of data analysis show that both the Cognitive-Strategy Based Method and Metacognitive-Strategy Based Method are effective in improving students' listening comprehension. These two strategies are able to solve the students' problems as mentioned in the background. The effectiveness of both cannot be separated from the relationship that they have.

The Cognitive-Strategy Based Method works by manipulating the materials to be learned mentally (e.g., elaboration) and physically (e.g., taking notes). Meanwhile, the Metacognitive-Strategy Based Method is related to planning, organizing and managing the learning. This method does not process inputs directly but have to go through the cognitive processes first. It involves thinking about how information is processed and stored, and taking appropriate steps to manage and organize the cognitive processes (Kumar et al., 2022). In other words, these two methods can effectively improve listening comprehension skill because they complement each other.

There are several studies showing different findings, however. Zhang and Seepho (2013) for example, found that metacognitive strategies are considered the most effective in improving learners' abilities. Furthermore, Ghanizadeh and Alishahi (2016) reported that learners' abilities are more influenced by metacognitive strategies because these strategies help them achieve their goals and elaborate on the essence by evaluating learning comprehension. Meanwhile, a study by Ratnaningsih (2015) revealed that metacognitive strategies did not have a different impact on students' listening abilities compared to cognitive strategies.

The results thus obtained are compatible with the previous studies (Kumar et al., 2022; Al-Azzemy & Al-Jamal, 2019; Liu & Thondhlana, 2015) who found that there was no significant different in terms of the effectiveness of using cognitive and metacognitive strategies in improving listening comprehension skill. Both are very important in determining students listening comprehension skill. Firdaus (2019) asserts that the more strategies implemented the better the results obtained. In other words,

listening comprehension will be better if students use various strategies according to their level of ability and needs.

Other previous studies also revealed that, in order to improve listening performance of the learners, teachers or practitioners need to provide them with adequate opportunities to practice various strategies in listening. They thus become more proficient in their use of the strategies. Using a particular listening strategy is less likely to develop their listening competencies (Fathi & Hamidizadeh, 2019; Griffiths, 2018; Yeldham & Gruba, 2014). Besides, teaching various listening strategies not only enrich the learners' knowledge on listening skills but also foster positive perceptions of the strategies (Gunning & Oxford, 2014), which is important for learning achievement.

Although statistical data has shown that both cognitive and metacognitive strategies have the same impact on the students' listening comprehension skill, this study needs to provide more information on dominant strategies employed by the students in listening activities. Thus, teachers will get a better understanding of how to help learners maximize their listening performance as well as to change the traditional conceptualization of listening which has been viewed as a passive language skill (Fathi & Hamidizadeh, 2019). By doing this, the students' listening skills will be increasing.

Nevertheless, this study comes up with a very necessary information that to improve listening comprehension skill of learners, the teachers need to provide them with opportunities to use both cognitive and metacognitive strategies. The combination of these two strategies will have a significant impact on increasing students' listening skills. Put simply, the results of this study not only provide more information about various strategies in listening but also insight on how listening skills should be taught in EFL classrooms.

Conclusion

Summing up the results, it can be concluded that using the Cognitive-Strategy Based Method and Metacognitive-Strategy Based Method has a positive impact on the listening comprehension of the participants in this study. Both effectively improve the participants' listening comprehension skill. There is no significant difference in the effectiveness of using the two methods because they both support each other in listening activities.

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