THE EFFECTIVENESS OF METACOGNITIVE INSTRUCTION TO TEACH LISTENING SKILL VIEWED FROM STUDENTS' SCHEMATA

Hamid Asman

Program Studi Pendidikan Bahasa Inggris IKIP-PGRI Pontianak
Jalan Ampera No. 88 Pontianak 78116
e-mail:tekenangkenang@yahoo.com

Abstrak

Tujuan penelitian ini adalah untuk mengetahui: (1) apakah metode instruksi Metacognitive lebih efektif dari metode instruksi Cognitive untuk mengajar skil mendengarkan; (2) apakah siswa dengan schemata tinggi mempunyai skil mendengarkan lebih baik dibanding siswa dengan schemata rendah; dan (3) apakah ada interaksi antara metode mengajar dan level schemata siswa dalam mengajar skil mendengarkan. Penelitian eksperimen ini dilaksanakan pada program studi pendidikan Bahasa Inggris IKIP-PGRI Pontianak pada tahun akademik 2014/2015. Analisa hasil data penelitian menunjukkan: (1) metode instruksi Metacognitive berbeda secara signifikan dari metode instruksi Cognitive dalam mengajar skil mendengarkan; (2) skil mendengarkan siswa dengan schemata tinggi secara signifikan berbeda dengan siswa dengan schemata rendah; dan (3) ada interaksi antara metode mengajar dan schemata siswa dalam mengajar skil mendengarkan. Berdasarkan hasil temuan, bisa disimpulkan bahwa metode Metacognitive Instruction efektif untuk mengajar skil mendengarkan. Keefektifan metode mengajar ini tergantung pada level schemata siswa.

Kata Kunci : instruksi metakognitif, instruksi kognitif, keterampilan menyimak, schemata siswa dan studi eksperimen.

Abstract

The objectives of this research are to reveal whether: (1) Metacognitive instruction method is more effective than Cognitive instruction method to teach listening skill; (2) the students with high level of schemata have better listening skill than those with low level of schemata; and (3) there is an interaction between the teaching methods and students' schemata in teaching listening skill. This experimental study was carried out at the English Education Department of IKIP-PGRI Pontianak in the Academic Year of 2014/2015. Data analysis reveals research findings as follows: (1) Metacognitive Instruction Method is significantly different from Cognitive instruction method to teach listening skill; (2) The listening skill of the students who have high schemata is significantly different from that of those who have low schemata; and (3) There is an interaction between teaching methods and students' schemata for teaching listening skill. Based on the findings, it can be concluded that Metacognitive Instruction Method is effective to teach listening skill. The effectiveness of the method depends on the degree of the students' schemata.

Key word : Metacognitive Instruction,Ccognitive Instruction, Listening Skill, Students' Schemata and Experimental Study.

INTRODUCTION

Listening is an active, interpretative and conscious processes in which listeners use cues from contextual information and existing knowledge to understand the spoken discourse. Similarly, Richards (2008:1) defines listening as an interpretative process involving listener's prior knowledge to process real – time authentic discourse. Through listening, we can understand and convey meaning from the dialogue and monologue that happen around us. It means that this skill plays a crucial role toward the development of others skill of the language, since it provide input for the language learners and enable language acquisition occurred.

Listening is widely accepted as an important skill because it is the channel in which the incoming information process takes place in real time (Rost, 2002:66). Without involving listening, we simply cannot process the spoken discourse, understand the oral message, and communicate to other. Having a good listening skill leads the learners to comprehend the input appropriately.

By considering the role of listening towards language acquisition, teaching listening is important because it facilitates language learning process to take place (Richards, 2008:3). Besides that, listening is an important skill in the development of other language skill because it provides input for the learners. According to Koichi (2002:8) without understanding the incoming input appropriately, learning process will not occur properly.

As an important language skills, listening has to be taught in proper way involving a systematic method to achieve the demanded level of mastery. According to Richards, (2008:6) the proficient learners are able to retain input, recognize clause and word division, recognize key words, recognize key transition in a discourse, recognize grammatical relationships between key elements in sentences, and use stress and intonation to identify word and sentence functions. However, listening is very demanding and challenging skill to be mastered (Koichi, 2002:2). In listening process, the learners encounter many difficulties. Flowerdew and Miller (2005:197) classifies seven causes of difficulty in listening process, listeners cannot control the speed of delivery, cannot always have words

repeated, have a limited vocabulary, may fail to recognize the signals which indicate that the speaker is moving from one point to another, giving an example, or repeating a point, may lack contextual knowledge, difficult to concentrate in a foreign language; and may have established certain learning habits such as a wish to understand every word. The existing difficulties create serious problem to the students in listening process if it does not meet the appropriate treatment.

Based on the descriptions above, a framework about the importance of listening in language learning and the existence of difficulties along on the process listening are taken as the main consideration to choose the appropriate teaching method that will be implemented in teaching listening in order to meet the demanded achievement level for this skill. According to Koichi, (2002: 15) teaching method plays an important role in language pedagogy, success and failure of teaching a language in the classroom can be examined from how effective the teacher implemented their teaching method. There have been many research findings revealed that the implementation of such an appropriate teaching method in the process of teaching and learning language positively contributed to the students achievement (Goh, 2008; Coskun, 2010; rasouli, 2013). Besides, implementing an appropriate teaching method in the language classroom also enhances the students to comprehend more about the given topic discussed.

One of the beneficial methods in teaching listening is Metacognitive instruction. Goh, (2008:195) defines Metacognitive instruction method as a way to engage the listeners with listening process through managing, regulating, and directing their learning include planning, monitoring and evaluating. This teaching method involves in listening process into three stages namely: before listening, during listening and after listening. The implementation of this method includes planning as a way to determine learning objectives and deciding the means by which the objectives can be achieved, monitoring as away to check the progress in the course of learning or carrying out a learning task, and evaluating as a way to achieve the outcome or complete a learning task..

Cognitive instruction is another method to teach listening. It is mental routine for accomplishing a cognitive goal which is related to comprehending and

storing input in working memory for later retrieval (Flowerdew and Miller, 2005:72). Cognitive instruction method includes comprehension process, storing or memory process and retrieval process. The essential feature of cognitive instruction is focus on how and why specific topics are to be mastered, with an emphasis on how the specific topic fits into an overall framework of related topics. In cognitive nstruction, the teacher serves as a mediator by helping to select learning strategies, construct meaning, monitor understanding, assess the use of a strategy, organize and relate ideas, summarize, and extend learning.

As the attributive variable of this research is students' schemata. According to Flowerdew and Miller (2005:26) schemata consisted of an active organization of past experiences. Organization organizes knowledge about certain properties of objects, events, and actions which typically belong together. The basic idea is that human knowledge bis organized and stored in memory according to reoccurring events. Brown (2006:4) schemata refer to the world knowledge, knowledge of the speaker or context, an analogy. Goh and Taib (2006 : 229) said that the hearer recalls background information or schemata relevant to the particular context and subject matter. A lifetime of experiences and knowledge is used to perform a cognitive association in order to bring an interpretation to the messages. Schemata also define as packet of information stored in memory representing general knowledge about objects, situations, events, or actions. From this explanation, schemata are created through experience with people, objects, and events in the world. Schemata are built up from numerous experiences of similar events. Anderson (2002:87) argues that the knowledge in our heads is internally organized in to interrelated patterns that are constructed from an individual's past experience of a given environment. These patterns, coined as schema, enable us to make predictions and inferences about the new experiences. Based on the explanation above, schemata is certain patterns which are related to the past experience. Past experience is used to make predictions and inferences about the new one. When individuals obtain knowledge, they attempt to fit that knowledge into some structure in memory that helps them make sense of that knowledge.

As for the classification of schemata, Anderson (2002:84) identify two essentials categories of schemata: textual schemata also recognized as rhetorical, formal, or organizational schemata that are related to knowledge of the general structure or format of the discourse level conversation, and content schemata that are linked with the knowledge about different topics that is derived from the individual's life experiences. All in all, schemata is a pattern of past experience about object, people, situations, events, and actions which consists of relevant information to the particular context and subject matter of cognitive aspects of schemata which are related to the listening process, such as memory, associating, storage and recall (content schemata), rhetorical and organizational form of schemata (formal schemata), and the knowledge of the letters and their corresponding sounds both alone and in clusters and the ability to predict, through knowledge of syntax, the word or words that will follow (linguistics schemata) and used as predictions or inferences to catch the message of the new experiences or new information.

The assumptions about the effectiveness of Metacognitive instruction method and Cognitive instruction method above raise a question whether Metacognitive instruction method is more effective than Cognitive instruction method in teaching listening to the third semester students of the English Education Department of IKIP-PGRI Pontianak in the Academic Year of 2014/2015. Therefore, an experimental study is conducted based on the use of Metacognitive instruction method compared with Cognitive instruction method to teach listening viewed from students' schemata to the third semester students of the English Education Department of IKIP-PGRI Pontianak in the Academic Year of 2014/2015.

RESEARCH METHOD

The research applied is an experimental design. As stated by Cresswell (2005: 283), the purpose of experimental design is to determine cause-and-effect relationships. It means that an experimental research is to investigate the correlation between cause and effect and how far its correlation is by giving

treatment to experimental group and control group as the comparison. In other words, in this research, the experimental research is aimed at observing whether there is an interaction between teaching methods and listening skill viewed from the students' schemata. The technique used in this experimental research was by comparing the experimental group using Metacognitive instruction method to control group using Cognitive Instruction as the teaching methods to teach listening. Each group was classified into two different levels of schemata. They are high and low. Moreover, in this research, there is one dependent variable and two independent variables. The dependent variable is listening skill and independent variables are teaching methods and schemata. This research applied a simple factorial design 2x2. Population is a group of individual who have the same characteristics (Cresswell, 2005:145) the population of the research is the third semester students of IKIP PGRI Pontianak in the academic year 2014/2015. It consisted six classes those were 3A morning, 3B morning, 3C morning, 3A afternoon, 3B afternoon, and 3C afternoon which consisted of 204 students. A sample is a sub group of the target population that the researcher plans to study for generalizing about the target population (Cresswell, 2005:146). Furthermore, he state that a sample is always smaller than a population, and it is often much smaller.

Based on the theories above, the researcher picked out from the population are 68 students coming from the two classes (3A morning and 3C morning) where each class consisted of 34 students. One class was used as the experimental group and another as control group. Each class was divided into two groups, 50% students who have high schemata and 50% those who have low schemata. One of the two classes was taught by implementing metacognitive instruction method and the other class was taught by implementing cognitive instruction method, so there are four groups: (1) students who have high schemata who were taught by Metacognitive instruction method; (2) students who have low schemata who were taught by Metacognitive instruction method; (3) students who have high schemata who were taught by cognitive instruction method; and (4) students who have low schemata who were taught by cognitive instruction method. Sampling is a

technique used for getting samples. According to Cresswell (2005:146) Sampling is a process of drawing a sample from a population. In this research, the researcher uses cluster random sampling, among the six classes, the researcher determined to take only two classes (3A morning and 3C morning) randomly as the sample in conducting the research by lottery. In this research, the researcher used questionnaire and objective tests related to the material and the topic provided. Questionnaire was used to know the students' schemata and test was applied to the students' skill in listening. In order to know the level of students' schemata, the students were given schemata questionnaire. The questionnaire consisted of statement lists and four responses, which should be chosen by the students. The responses consisted of (strongly agree, agree, disagree, and strongly disagree). For positive statement, the score 4 to 1, while for negative statement, the score is from 1 to 4. Furthermore, to know the students' listening competence, the students were given listening test with five options (a, b, c, d and e). The items of students' schemata questionnaire and listening test were made and arranged based on the indicators at the blue print, which were formulated on the construct. The researcher uses descriptive and inferential analysis in this research. The descriptive analysis is used to know the mean, median, mode, and standard deviation of the score of listening test and questionnaire. The normality and homogeneity test were used to know the normality and homogeneity of the data. It was done before testing the hypothesis and the last is the use of multifactor analysis of variance or ANOVA 2X2. Ho is rejected if $F_o > F_t$. If Ho is rejected the analysis is continued to know which group is better using Tukey test. The researcher used 2 x 2 ANOVA to find out whether the difference between experimental and control group is significant.

RESEARCH FINDINGS AND DISCUSSION

The result of the data analysis showed that F_o between columns (5.34) is bigger than F_t (3.92) at the level of significance $\alpha = 0.05$, Ho is rejected and the difference between columns is significant. It can be concluded that the methods are different significantly from one another to teach listening skill; F_r between

rows (6.49) is bigger than F_t, Ho is rejected and the difference between rows is significant. It can be concluded that the students who have high and those who have low schemata are significantly different in their listening skill; (c)Because F_i between group (34.27) is bigger than F_t. There is an interaction between the teaching methods and students' schemata. Thus, it can be stated that the effectiveness of teaching methods depends on the degree of students' schemata.

The analysis of tuckey test also showed that qo between columns (3.26) is higher than qt at the level of significance $\alpha = 0.05$ (2.86), the difference of the means between columns is significant. Therefore, it can be concluded that applying Metacognitive Instruction method differs significantly from Cognitive Instruction method to teach listening skill. Because the mean of A1 (70.56) is higher than A2 (66.53), it can be concluded that Metacognitive Instruction method is more effective than Cognitive Instruction method to teach listening; qo between rows (4.00) is higher than qt, the difference of the means between rows is significant. The students who have high schemata and those who have low schemata are significantly different in their listening skill. The mean of B1 (70.76) is higher than B2 (66.32), it showed that the students who have high schemata have better listening than those who have low schemata. qo between cells A1B1 and A2B1 (8.03) is higher than qt, the difference between columns is significant. It can be concluded that applying Metacognitive instruction method differs significantly from Cognitive Instruction method for teaching listening skill to the students who have high schemata. Because the mean of A1B1 (77.88) is higher than A2B1 (63.65) ,it can be concluded that Metacognitive instruction method is more effective than Cognitive Instruction method for teaching listening to the students having high schemata; (d) ecause qo between cells A1B2 and A2B2 (3.44) is higher than qt at the level of significance $\alpha = 0.05$ (2.98), therefore the difference between columns is significant. It can be concluded that applying Cognitive Instruction method differs significantly from Metacognitive Instruction method for teaching listening skill to the students who have low schemata. Because the mean of A1B2 (63.24) is lower than A2B2 (69.41), it can be concluded that Cognitive Instruction method is more effective than Metacognitive

instruction method for teaching listening skill to the students who have low schemata.

Based on the findings above, it can be concluded that there is an interaction between teaching methods and students' schemata for teaching listening skill because Fo is higher than Ft. Metacognitive instruction method is significantly different from Cognitive Instruction Method to teach listening skill for the students who have high schemata because q_o between cells (A_1B_1 and A_2B_1) is higher than q_t and Metacognitive instruction method is more effective than Cognitive Instruction Method to teach listening skill because the mean of A_1B_1 is higher than A_2B_1. However, Cognitive Instruction Method is significantly different from Metacognitive instruction method to teach listening skill for the students who have low schemata because q_o between cells (A_2B_2 and A_1B_2) is higher than q_t and Cognitive Instruction Method is more effective than Metacognitive instruction method to teach listening skill because the mean of A_2B_2 is higher than A_1B_2. The effectiveness of the method depends on the degree of the students' schemata.

Discussion

Based on the research findings, it can be explained as follows:

1. There is a significant difference on the effect between teaching listening using Metacognitive instruction method and teaching listening using Cognitive Instruction method. Teaching listening using Metacognitive instruction method to the third semester students of IKIP – PGRI Pontianak is more effective than Cognitive Instruction method. The findings of this study is in line with Goh and Taib (2016) they found that results of the study showed the contribution of metacognitive instruction in language learning during listening comprehension process is significant. Rasouli (2013) found that the use of metacognitive instruction (planning for listening, self-monitoring of comprehension process and evaluation of one's own performance) is associated with proficient listeners. So, proficient listeners' performance and strategy use could provide valuable instructional resources and useful teaching

guidelines for teachers. Therefore, teachers can base their listening instruction on listeners' use of metacognitive instruction as a model to design various practical tasks, for guiding listeners to have better use of metacognitive listening instruction (Goh, 2008; Vandergrift, 2007). The students need to acquire an effective strategy and apply them in listening as they confidently approach listening inputs to achieve the most in listening performance.

Furthermore, Coskun (2010:43) found that the implementation of metacognitive instruction method increases students' listening performance. The student listening comprehension improved more after exposure to metacognitive instruction method. This research showed that the implementation of metacognitive instruction method in teaching listening increases students' performance and makes them achieve the intended performace in completion the tasks and attending listening process.

Moreover, Metacognitive instruction helps students to understand the problem and solution, and make comparisons. Students can become aware of and develop good listening processes to improve their comprehension. The students' listening can be improved by putting metacognitive instruction into practice in the context of listening, they will mostly benefit from meaningful learning. As the results of this study showed, metacognitive instruction advances students level of listening. Metacognitive instruction fit students' needs and adapt these listening instruction to facilitate academic learning.

2. There is a significant difference in listening skill between students with high schemata and those with low schemata. Listening skill of the students having high schemata is better than those having low schemata. The mean score of students having high schemata is higher than those having low schemata, the finding of this study are in line with Rasouli,et.al (2013:126). He found that listeners comprehend better when they process schemata relevant to listening topic. The background knowledge is closely related to listening comprehension.

Furthermore, Vandergrift (2007:205) state that comprehension was assessed through a recall protocol. Result of the study showed that both topics

familiarity and course level affect measures of listening comprehension. All subjects recalled significantly more information from the familiar topic and the improvement in comprehension score ascended with the quarter level. The use of familiar topic is helpfulness for the students to understand and comprehend the listening.

In all three previous studies, schemata are shown to improve listening comprehension, so that the students should have schemata. The characteristics of the students having high and low schemata were stated by Anderson (2002:74). The students have good self preparation, good self organization, and good incorporation in all different kinds of knowledge. Students with high schemata can predict the input listening well. Meanwhile, the students having low schemata have the opposite characteristics. They have unwell organization of knowledge, unwell recognition and incorporation of some knowledge. They cannot predict the input of knowledge well.

Those three previous researches have little bit different with the findings of this research. This research uses a sample of English as second language students. The students have high schemata in first language terms. So, they have limited vocabulary to express their background knowledge which relevant with the topic of listening. While, the three previous studies used the students as samples where English as first language. They have unlimited vocabulary to express and relate their background knowledge to the relevant topic of listening. However, based on the data of research findings, the students of English as a second language students having high schemata have better listening skill than those having low schemata.

3. There is an interaction between teaching method and schemata. It cannot be denied that teaching method which is used by the teacher in the class gives a big influence for the success of the teaching and learning process. Metacognitive instruction method is more effective than Cognitive instruction method in teaching listening for students who have high schemata and Cognitive instruction method is more effective than Cognitive instruction method in teaching listening for the students who have low schemata.

The use of Metacognitive instruction method will be more effective when the students have high schemata about the materials. The Metacognitive instruction method provide context which relevant to the students' schemata and the activation of schemata in the brain will be stronger. As the result the students will be easier to predict the new information contextually. It is because the students who have high schemata have some characteristics. Anderson (2002:87) states that the characteristics of the students who have high schemata are: 1) students' schemata are always organized meaningfully; 2) students' schemata may be reorganized when incoming data reveals; 3) students use the mental representations during perception and comprehension; 4) students can incorporated all the different kinds of knowledge; 5)students schemata can predict input well. They can catch the messages which convey by the speakers easily. Last, the listener can respond the speaker message correctly.

On the other hand, Cognitive instruction method is mental routine or procedure for accomplishing a cognitive goal which is related to comprehending and storing input in working memory for later retrieval. Flowerdew and Miller (2005:75), classifies cognitive instruction in teaching listening in to the following three phases: (1) comprehension process; (2) storing process; and (3) retrieval process. In cognitive instruction method, the teacher serves as a mediator by helping the students to select learning instruction, construct meaning, monitor understanding, assess the use of a strategy, organize and relate ideas, summarize, and extend learning. In implementing cognitive instruction method the teachers have to stimulate the students to be active, provide clear feedback regarding the effectiveness of that learner activity and provide instruction in the questions of when, why, and where such activities are likely to be effective. These systematic steps are suitable for the students who have low schemata because the listeners depend on the teachers to assist them to understand and comprehend the listening tasks. It is in line with the characteristics of students who have low schemata. Anderson (2002:88) states that the students who have low schemata are: 1)

students' schemata are well unorganized in memory; 2) students' schemata cannot reorganized well; 3) students are not encouraged the mental representations during perception and comprehension; 4) students cannot incorporate all the different kinds of knowledge; 5) students schemata are irrelevant to the input of the materials. In short, there is an interaction between Metacognitive instruction method with the students who have high schemata and there is also an interaction between Cognitive instruction method with the student who have low schemata.

Therefore, there is an interaction between teaching methods and schemata toward students' listening skill. Metacognitive instruction method is more effective than Cognitive instruction method to teach listening skill for students with high level of schemata. In the other words, Metacognitive instruction method is suitable for students with high level of schemata. Meanwhile, Cognitive instruction method is more effective than Metacognitive instruction method to teach listening skill for students with low level of schemata. In the other words, Cognitive instruction method is suitable for students with low level of schemata.

CONCLUSION

The findings of the research are:

Metacognitive instruction method is more effective than Cognitive instruction method to teach listening skill for the third semester students of the English Education Department of IKIP-PGRI Pontianak in the Academic Year of 2014/2015, the students having high schemata have better listening skill than those having low schemata for the third semester students of IKIP – PGRI Pontianak, there is an interaction between the teaching methods and students' schemata in teaching listening skill.

The result of the research proves that using Metacognitive instruction method is an effective teaching listening skill to the third semester students of IKIP – PGRI Pontianak. It is proved from research findings showing that the students who are taught by using Metacognitive instruction method have better listening skill than those who are taught using Cognitive Instruction Method.

BIBLIOGRAPHY

Anderson, N.J. 2002. *The role of metacognition in second language teaching and learning. ERIC Digest*, 3(4), 67 – 89.

Brown, S. 2006. *Teaching Listening*. Cambridge: Cambridge University Press.

Coskun, A. 2010. *The Effect of Metacognitive Strategy Training on the Listening Performance of Beginner Students*. Online Submission, *4*(1), 35-50.

Cresswell, J. W. 2005. *Educational Research: planning, Conducting, And Evaluating Quantitative, and Qualitative Research*. New Jersey: Pearson Education, Inc

Flowerdew, J., & Miller, L. 2005. *Second language listening*: Theory and practice. Cambridge: Cambridge University Press.

Goh, C., & Taib, Y. 2006. *Metacognitive instruction in listening for young learners. ELT journal*, *60* (3), 222-232.

Goh, C. 2008. Metacognitive Instruction for Second Language Listening Development Theory, Practice and Research Implications. *RELC journal*, *39* (2), 188-213.

Krashen S. 2008. Language education: past, present, and future. *Regional Language Centre Journal,* 39(2) 178-187.

Koichi, N. 2002. How to Teach Listening. *Educational Resources Education Cente,* 34(1) 1 – 27.

Rasouli, M. et al. 2013 *The Effect of Metacognitive Listening Strategy Training on Listening Comprehension in Iranian EFL Context*. *European Online Journal of Natural and Social Sciences*, 2 (1), 115 – 128.

Rost, M. 2002. *Teaching and Researching Listening*. London: Longman.

Vandergrift, L. 2007. *Recent developments in second and foreign language listening comprehension research.* Language Teaching, 40, 191-210.

Wang, S. Y., & Miao, X. W. 2003. Teaching EFL Listening: From Theory to Practice. *Media in Foreign Language Instruction*, *4*, 1-5.

Wilson, M. 2003. *Discovery listening—improving perceptual processing. ELT journal*, *57*(4), 335-343.