THE IMPACT OF METACOGNITIVE INSTRUCTION ON EFL STUDENTS’ LISTENING COMPREHENSION AND METACOGNITIVE AWARENESS IN LUBUKLINGGAU

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Abstract - Metacognitive instruction is a relatively current trend in ESL/EFL listening comprehension pedagogy, particularly in Indonesia. Thus, under this pedagogical framework, this present paper reports on an intervention study that investigated the impact of the instruction on listening comprehension and metacognitive awareness of EFL undergraduate students in Lubuklinggau during one semester. Each week in the same semester, the participants were guided through the process of planning, monitoring, and evaluating in their listening activities. The study involved 29 first-year students from the study program of English Education in a private university in Lubuklinggau. The instrumentation for this study included the use of a listening test, a questionnaire, and semi-structured interview. The results indicated that the metacognitive pedagogical cycle might have a considerable impact on enhancing EFL undergraduate students’ listening comprehension. Moreover, the EFL students were able to benefit from the instruction in listening strategies to assist them in their language learning success. Possible reasons for the findings are explained and the recommendations for the future research presented.

Keywords – metacognitive instruction, metacognitive awareness, listening comprehension

1. INTRODUCTION

Listening comprehension can be considered a crucial skill to develop in language learning. It can facilitate an important role in the improvement of other language skills (Rost, 2002; Vandergrift, 2007; Vandergrift and Goh, 2012). However, in learning this skill, it can be a stressful activity for beginning and intermediate EFL learners, particularly who are often unable to process information quickly enough to understand what people said. It is then often considered as “a big challenge” for them (Graham, 2006). It could be due to several factors. Samuels (1984) divided them into three such as external, medium and internal factors. The external factors refer to speaker factors such as speech rate, pronunciation and accent. The medium factors deal with context, text type and task type. Then, the internal factors are about the ESL/EFL listeners themselves such as their motivation, background knowledge and listening proficiency.

Moreover, language learners are still left to improve their listening proficiencies on their own with limited direct support from their teachers. It means that they are seldom taught to learn how to listen or to regulate their listening when attending to the audio or video texts or messages. As Vandergrift and Goh (2012, p. 4-5) stated, most of the EFL teachers tend to focus on the product or outcome of students’ listening and limited guidance on how the students can manage and evaluate their efforts to enhance their listening abilities. In Indonesian context, those problems are also faced by most of EFL students in their language classrooms when they are learning to listen particularly for beginning EFL students.

Many ESL/EFL language teachers have applied many teaching methods in helping students to develop their abilities in listening. However, ESL/EFL experts still believe that much studies need to be conducted to enable a more effective EFL listening classroom teaching (Anderson and Lynch, 1988; Goh, 2008; Mendelsohn, 1998; Vandergrift, 2004; Vandergrift and Goh, 2012). For about 5 decades, listening activities has changed and witnessed three types of listening instruction such as text-based instruction, communication-based instruction, and learner-based instruction (Vandergrift and Goh, 2012).

Based on a view that listening an important language skill to be developed, many ESL/EFL experts have drawn new approaches to teaching listening and conducted many studies (i.e. Goh and Taib, 2006; Macaro, Graham, and Vanderplank, 2007; Rubin, 1994; Vandergrift, 2004). These studies have also been undertaken due to the developments in the field of cognitive psychology. One of those studies is metacognitive approach (Goh, 2008; Mendelsohn, 1995, 1998; Vandergrift, 2004; Vandergrift and Goh, 2012). This approach is a learner-based approach to listening instruction and mainly focused on effective strategy instruction in and out of the classroom” (Vandergrift and Goh, 2012). Similarly, Goh and Hu (2014) argue that metacognition can affect language learning.

Metacognitive approach is a current approach in ESL/EFL listening and the empirical research was just a recent development (Vandergrift, 2007). However, evidence from reading and writing showed that metacognitive strategies encourage students in regulating their learning more effectively so that they were able to maximize and improve their performance.
Current research from ESL/EFL listening context were conducted by implementing the metacognitive approach to enhance listening comprehension abilities and metacognitive awareness (e.g. Rahimirad, 2014; Selamat and Sidhu, 2012; Wang, 2016).

Selamat and Sidhu (2012) investigated the effects of metacognitive strategy training on lecture listening comprehension abilities of ESL/EFL undergraduate students in Iran. The results revealed that the students who frequently use metacognitive strategies when listening to lectures in English scored higher in the listening test. Then, Rahimirad (2014) examined the impact of metacognitive strategy instruction on the listening performance of EFL university students in Iran. The results of the TOEFL test showed that the experimental group significantly outperformed the control group on the post test. Moreover, a study conducted by Wang (2016) examined the impact of a metacognitive approach to listening instruction on Chinese university EFL students’ listening abilities and metacognitive knowledge aspects. The results revealed that the instruction might positively affect students’ listening abilities and could contribute to students’ growth in three aspects of metacognitive knowledge, involving person, task, and strategy knowledge.

Those studies in ESL/EFL listening had been undertaken in several countries such as China, Iran, and Malaysia. However, in Indonesian context, the effectiveness of metacognitive instruction in increasing students’ listening comprehension abilities and metacognitive knowledge needs further exploration.

Therefore, this present study investigates the impact of metacognitive instruction proposed by Vandergrift and Goh (2012) on the listening comprehension and metacognitive strategy awareness of undergraduate students in a private university in Lubuklinggau, Indonesia. In addition, students are able to benefit from metacognitive instruction by using more effective listening strategies to assist them in enhancing their language learning success.

II. METHODOLOGY

The present study uses both quantitative and qualitative research methodologies. The research data were elicited from pre- and post-tests of listening comprehension, a questionnaire, and semi-structured interview the participants.

2.1. The participants

The participants were 29 second semester students undertaking English Education study program at a private university in Lubuklinggau, Indonesia. All of the students were from non-English speaking backgrounds and English as foreign language to them. The students consisted of 9 male students and 20 female students between the ages 19 and 35 years old.

2.2. Instrumentations

This study used three types of data collection tools. They are pre- and post-tests of listening proficiencies, questionnaire, and semi-structured interview. The pre- and post-tests were distributed to establish whether the students had benefited significantly from the 16-week intervention program. The pre-test were undertaken before the strategy training and the post-test done after the training. The tests were adopted from the test of English as a foreign language (TOEFL) listening comprehension section published by Longman (2002). The reason why the test was used is due to the fact that TOEFL is the most widely used in the world. The tests consisted of 50 multiple-choice questions divided into three sections, short conversation, longer conversation and long talk.

The questionnaire was then adapted from Vandergrift and Goh (2012) metacognitive awareness listening questionnaire (MALQ). The MALQ has been used as a tool to enhance students’ awareness of listening processes and to enhance self-regulated use of comprehension strategies (Coskun, 2010). The questionnaire consists of five metacognitive factors that are related to listening strategies: person knowledge, planning-evaluation, mental translation, directed attention, and problem-solving. The present study had used four of five factors in the questionnaire (planning-evaluation, mental translation, directed attention, and problem-solving) that focused on metacognitive strategy awareness. The questionnaire results were analyzed according those factors using frequency counts. Besides that, the interview was transcribed and then analyzed deductively and inductively.

2.3. The procedure

The present study used metacognitive instruction intervention. The intervention was conducted in 16-week during one semester in the listening session of professional contexts. The 29 students underwent metacognitive listening module aimed at enhancing their listening skills and metacognitive strategies. The first week was undertaken to introduce the teaching program related to an overview of incorporating metacognition in listening instruction and employ the pre-test to the students and the final week of the semester was utilized to collect data through the distribution of post-test and interview.

In each meeting during one semester, the instructional procedure was based on suggestions of Vandergrift and Goh (2012) in implementing metacognitive pedagogical cycle. The procedure involved the following steps of contextualization, pre-listen, first listen, first pair/group discussion, second
listen, second pair/group discussion, class discussion, third listen, reflection and goal setting.

1. Contextualization: the students were asked to read a short passage or watched a video related to the topic (e.g. watching a short video about knowledge management was related to the topic of unit 5).
2. Pre-listen: in this phase, the students wrote down the possible information they might hear on a sheet of paper based on the above brainstorming activities.
3. First listen: the students listened to the material for the first time. During listening, they placed a mark besides their predictions and write down any information they heard/listened but were not predicted.
4. First pair/group discussion: the students worked in pairs/groups to share and compare their notes, discuss several points of confusion and disagreement. Then, they wrote down the possible information they might hear/listen in the second listen.
5. Second listen: the students listened to the material for the second time. During the process of listening, they checked their previous answers or predictions, made corrections, and wrote down any other new information they listened.
6. Second pair/group discussion: the students worked again in pairs/groups to share and compare their notes and discuss their confusion and disagreement.
7. Class discussion: during this phase, the students share and discuss what they knew and did not know about the material/topic helped by their teacher to figure out the information.
8. Third listen: the students listened to the material for the third time. They concentrated on information they were unable to identify previously. In this step, they also given a transcript to identify sound-symbol relationships.
9. Reflection and goal setting: this is the last section of the teaching procedure. In this section, the students were encouraged to share and write down the obstacles they faced during listening the material, try to find out the corresponding solutions and what they will do next to improve their listening abilities.

III. FINDINGS AND DISCUSSION

3.1. Findings

3.1.1. Listening comprehension abilities

In order to examine whether metacognitive instruction has significantly resulted in developing students’ listening comprehension, it was decided to compare the results of the students’ pre- and post-tests by using SPSS 24. Table 1 reveals results of the analysis of the students’ listening comprehension for the pre- and post-test. The score indicated that the EFL students attain higher mean scores in the post-test compared to the pre-test score. The mean score of pre-and post-test were 24.07 and 30.76 respectively resulting in the mean difference of 6.690. The scores of standard deviation of each test were 10.233 and 16.022 respectively resulting in the standard deviation difference of 10.919. Moreover, the results reveal that the total score for the students’ post-test was significantly different at p<0.005: t-value = 3.299, p-value = 0.003 (sig. 2-tailed). Therefore, the findings indicate that the students’ listening comprehension abilities significantly improved after implementation of the teaching program.

<table>
<thead>
<tr>
<th>Statements</th>
<th>Pre-semester</th>
<th>Post-semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Before I start to listen, I have a plan in my head for how I am going to listen.</td>
<td>59%</td>
<td>96%</td>
</tr>
<tr>
<td>2. I focus harder on the text when I have trouble understanding</td>
<td>48%</td>
<td>93%</td>
</tr>
<tr>
<td>3. I translate in my head as I</td>
<td>37%</td>
<td>85%</td>
</tr>
</tbody>
</table>

Table 1. Paired T-test

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std D.</th>
<th>t-value</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test</td>
<td>24.07</td>
<td>10.233</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post-test</td>
<td>30.76</td>
<td>16.022</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-*post-test</td>
<td>-6.690</td>
<td>10.919</td>
<td>3.299</td>
<td>0.003</td>
</tr>
</tbody>
</table>

The present results showed that the implementation of metacognitive instruction encouraged the students to improve their listening comprehension abilities.

3.1.2. Metacognitive listening strategy awareness

To investigate the EFL students’ metacognitive awareness in listening strategy, the present study used a questionnaire and interview. The questionnaire was distributed before and after the teaching program. Table 2 shows the questionnaire results related to four metacognitive factors and indicates that there were the development of the use of metacognitive strategies awareness in listening. The MALQ items were analyzed based on metacognitive factors, except person knowledge, in relation to listening strategies such as planning-evaluation strategies, mental translation strategies, directed attention strategies, and problem solving strategies.

Table 2. Students’ responses on metacognitive listening strategies

<table>
<thead>
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</tr>
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<td>59%</td>
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<tr>
<td>2. I focus harder on the text when I have trouble understanding</td>
<td>48%</td>
<td>93%</td>
</tr>
<tr>
<td>3. I translate in my head as I</td>
<td>37%</td>
<td>85%</td>
</tr>
</tbody>
</table>
Table 2 above presents the students’ responses to the questionnaire on metacognitive listening strategies. The findings compared between pre-semester and post-semester of the MALQ indicated that there was commonly an improvement in metacognitive strategies awareness of the EFL undergraduate students in a private university in Lubuklinggau, Indonesia. They were able to take advantages of the effective strategy use in metacognitive instruction program.

The analysis reveals that there was an increase in the proportion of the students using the strategies ranging around 27% to 44%. Most of the students were able to use the effective listening strategies that support their listening comprehension abilities.

Moreover, from the interview data, most of the students demonstrated their awareness of the importance of planning-evaluation strategies. Student 8, student 15, student 18 and student 21 argued that they felt happy when learning to listen in the classroom because the strategies are different from when they were in the senior high school.

### 3.1.2.1. Planning-evaluation strategies

Based on the questionnaire, the statements 1, 8, 12, 17, and 18 stated planning-evaluation strategies. Table 3 showed the results of the students’ responses on the strategies.

Table 3. Students’ responses on planning-evaluation strategies

<table>
<thead>
<tr>
<th>Statements</th>
<th>Pre-semester</th>
<th>Post-semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Before I start to listen, I have a plan in my head for how I am going to listen.</td>
<td>59%</td>
<td>96%</td>
</tr>
<tr>
<td>8. Before listening, I think of similar texts that I may have listened to.</td>
<td>51%</td>
<td>81%</td>
</tr>
<tr>
<td>12. After listening, I think back to how I listened, and about what I might do differently next time.</td>
<td>49%</td>
<td>93%</td>
</tr>
<tr>
<td>13. When I have difficulty understanding what I hear, I give up and stop listening.</td>
<td>44%</td>
<td>74%</td>
</tr>
<tr>
<td>14. I use the general idea of the text to help me guess the meaning of the words that I don’t understand.</td>
<td>44%</td>
<td>96%</td>
</tr>
<tr>
<td>15. I translate word by word, as I listen.</td>
<td>52%</td>
<td>85%</td>
</tr>
<tr>
<td>16. When I guess the meaning of a word, I think back to everything else that I have heard, to see if my guess makes sense.</td>
<td>52%</td>
<td>89%</td>
</tr>
<tr>
<td>17. As I listen, I periodically ask myself if I am satisfied with my level of comprehension.</td>
<td>52%</td>
<td>96%</td>
</tr>
<tr>
<td>18. I have a goal in mind as I listen.</td>
<td>62%</td>
<td>89%</td>
</tr>
</tbody>
</table>

The questionnaire consisted of eighteen statements focused on planning-evaluation strategies, mental translation strategies, directed attention strategies, and problem solving strategies. Statements 1, 8, 12, 17, and 18 focused on planning-evaluation strategies; statements 3, 9, and 15 focused on mental translation strategies; statements 2, 5, 10, and 13 focused on directed attention strategies; and, statements 4, 6, 7, 11, 14, and 16 focused on problem solving strategies.

### 3.1.2.2. Mental translation strategies

Based on the questionnaire, the statements 3, 9, 15 focused on mental translation strategies. Table 4 summarizes the result of the analysis of the strategies. The analysis showed that there was an improvement
of the students in using the strategies ranging around 33% to 48%.

Table 4. Students’ responses on mental translation strategies

<table>
<thead>
<tr>
<th>Statements</th>
<th>Pre-semester</th>
<th>Post-semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. I translate in my head as I listen.</td>
<td>37%</td>
<td>85%</td>
</tr>
<tr>
<td>9. I translate key words as I listen.</td>
<td>41%</td>
<td>81%</td>
</tr>
<tr>
<td>15. I translate word by word, as I listen.</td>
<td>52%</td>
<td>85%</td>
</tr>
</tbody>
</table>

To improve their listening comprehension, after the treatment 85% of the students said that they translate in their head as they listen, 81% they translate key words as they listen, and 85% they translate word by word, as they listen. Although the fact that word by word translation is a difficult activity, compared between before and after the treatment, 33% of the students still used this strategy to enhance their listening comprehension. Based on the data from the interview, most of the students still used the translation strategies to enhance their listening comprehension. S5 and S12 stated that during listening process, they still tried to translate word by word to make sense what people said in a recording.

3.1.2.3. Directed attention strategies

Based on the questionnaire, the directed attention strategies had been stated in the Statements 2, 5, 10, and 13. Table 5 summarized the students’ responses on these strategies. The table shows that there was an improvement of the students in using the strategies ranging around 25% to 45%.

Table 5. Students’ responses on directed attention strategies

<table>
<thead>
<tr>
<th>Statements</th>
<th>Pre-semester</th>
<th>Post-semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. I focus harder on the text when I have trouble understanding.</td>
<td>48%</td>
<td>93%</td>
</tr>
<tr>
<td>5. When my mind wanders, I recover my concentration right away.</td>
<td>55%</td>
<td>93%</td>
</tr>
<tr>
<td>10. I try to get back on track when I lose concentration.</td>
<td>67%</td>
<td>92%</td>
</tr>
<tr>
<td>13. When I have difficulty understanding what I hear, I give up and stop listening.</td>
<td>44%</td>
<td>74%</td>
</tr>
</tbody>
</table>

The analysis indicated that these strategies are essential for the students to direct their attention in enhancing their listening comprehension. Based on the interview data, many of the students argued that maintaining their focus or concentration during listening is the most difficult problems to overcome. Student 7 and student 16 claimed that concentrating is difficult for them. Although these strategies are difficult for them, they still tried to use the strategies to help them in concentration during the learning process.

3.1.2.4. Problem solving strategies

Based on the questionnaire, these strategies had been stated in the Statements 4, 6, 7, 11, 14, and 16. These strategies are an enquiry method and a crucial approach to elicit solutions to a problem. These strategies are essential for the students to become effective language learners. Table 6 shows the students’ responses on the strategies. They frequently used these strategies ranging around 34% to 52% after the implementation of the teaching program. The analysis shows that most of the students gradually implemented the problem solving strategies in overcoming their comprehension problems and enhancing their listening comprehension abilities.

Table 6. Students’ responses on problem solving strategies

<table>
<thead>
<tr>
<th>Statements</th>
<th>Pre-semester</th>
<th>Post-semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. I use the words I understand to guess the meaning of the words I don’t understand.</td>
<td>44%</td>
<td>93%</td>
</tr>
<tr>
<td>6. As I listen, I compare what I understand with what I know about the topic.</td>
<td>59%</td>
<td>93%</td>
</tr>
<tr>
<td>7. I use my experience and knowledge to help me understand.</td>
<td>56%</td>
<td>93%</td>
</tr>
<tr>
<td>11. As I listen, I quickly adjust my interpretation if I realize that it is not correct.</td>
<td>51%</td>
<td>96%</td>
</tr>
<tr>
<td>14. I use the general idea of the text to help me guess the meaning of the words that I don’t understand.</td>
<td>44%</td>
<td>96%</td>
</tr>
<tr>
<td>16. When I guess the meaning of a word, I think back to everything else that I have heard, to see if my guess makes sense.</td>
<td>52%</td>
<td>89%</td>
</tr>
</tbody>
</table>

The table reveals that the most used problem solving strategies is using the general idea of the text...
to help the participants guess the meaning of the unknown words. Before the implementation of the teaching program, 44% of the participants used the strategy however after the use of the intervention 96% of the students used it. There was an increase 53% between before and after the treatment. The data from the interview with the participants seemed to support the findings. Student 3 stated that “I tried to activate my background knowledge to help me in predicting what the topic is about.”

However, the least used problem solving strategies is comparing what the students understand with what they know about the topic. Before the intervention, 59% of the students used the strategies and 93% of the students implemented this strategy after the treatment. The improvement is about 34% between before and after the implementation of the teaching program. Interview with the students indicated that their statements support the results. Student 19 and Student 25 claimed that they attempted to compare what they have known with the topic.

3.2. Discussion

This current study examined the impact of metacognitive instruction on students’ listening comprehension abilities and metacognitive awareness, particularly on strategy knowledge, over 16 weeks. It was found that there was a considerable impact on enhancing EFL undergraduate students’ listening comprehension abilities. The result was in line with other current research results conducted by several researchers (e.g. Rahimirad, 2014; Selamat and Sidhu, 2013; Wang, 2016) from different countries that indicated that the intervention had significantly developed the ESL/EFL students’ listening abilities.

Moreover, findings revealed that metacognitive instruction has the potential to be an alternative to replace the test-oriented approach to EFL listening instruction at universities in Indonesia. The test-oriented approach focuses on the outcome of students’ listening abilities. In other words, it is used to get the correct answers to students’ comprehension abilities. By contrast, the metacognitive instruction concentrates on encouraging students the processes of how to listen so that they are able to become self-regulated students in the language skill (Vandergrift and Goh, 2012).

In relation to metacognitive awareness, the questionnaire used was adapted from Vandergrift and Goh (2012) called MALQ (metacognitive awareness listening questionnaire). The questionnaire included four learning strategies in listening, namely planning-evaluation strategies, mental translation strategies, directed attention strategies, and problem solving strategies. Those learning strategies in listening has contributed to the students’ growth in listening strategy awareness.

Planning-evaluation strategies help students to improve their listening comprehension. A study by Rost (2002) showed that background knowledge could encourage students in understanding their learning materials more effectively. It is similar with a study conducted by Flowerdew and Miller (1992) that revealed that the students who are good in their prior knowledge could be easily understand the learning content.

On mental translation strategies, there were an improvement in the proportion of the students using the strategies although they were difficult activities. According to Wilss (1996) translation is “a complex cognitive activity and a problem-solving process”. It means that although mental translation activities is difficult for the students, they still try to use them in learning to listen.

Furthermore, directed attention strategies are essential for the students to direct their attention in enhancing their listening comprehension abilities. As Kaplan and Berman’s (2010) pointed out that the ability to consciously manage one’s attention is a key ability for planning and regulation.

The last learning strategies are problem solving strategies. The students in this study gradually used these strategies in overcoming their comprehension problems and improving their listening proficiency.

Therefore, this study is meaningful for metacognition in language education. It supports previous claims about the benefits of metacognitive instruction in self-regulated language learning (Graham and Macaro, 2008). In addition, it can be an alternative of effective teaching ways to improve students’ metacognitive development (Fisher et al, 2007). Moreover, the effectiveness of metacognitive instruction might also applied in other domains of language instruction (e.g. reading, writing) to enhance learning and metacognitive knowledge.

IV. CONCLUSIONS

The present study examined the impact of metacognitive instruction in enhancing the EFL undergraduate students’ listening comprehension and metacognitive strategy awareness. The results of the study revealed that there was a significant improvement of the students’ listening comprehension abilities after the use of metacognitive instruction. It can be seen from the statistical analysis of the TOEFL-preparation tests between pre- and post-tests. The used statistical analysis is paired T-test to examine the difference between mean scores of pre- and post-tests.

In addition, the students also were able to benefit from the intervention to use effective listening strategies in improving their language learning success. The results of the pre-and post-semester questionnaire of metacognitive listening strategies seemed to support the results. The questionnaire data were analyzed by using percentages.

In short, the results of the present study indicate that the necessity for the language teachers, particularly the EFL teachers in Indonesia, to focus on...
a strategic approach to the listening task in language classroom and to replace text-oriented instruction (e.g. testing students’ listening comprehension) with other listening instructions such as communication-based instruction and learner-based instruction by incorporating technology. For further researchers, they are able to investigate the perception of the students of the implementation of the metacognitive strategy instruction or to examine the effect of this instruction with large scale of the students as the participants, particularly in Indonesian context.

REFERENCES