Learners' Listening Skill and Metacognitive Awareness through Metacognitive Strategy Instruction with Pedagogical Cycle

Roderick Julian Robillos
Khon Kaen University, Khon Kaen, Thailand, *rodero@kku.ac.th*

Irene Gaspar Bustos
Central Luzon State University, Nueva Ecija, Philippines, *bustosireneg@clsu.edu.ph*

The instruction of metacognitive strategies in listening has been increasingly implemented in English as a Foreign Language (EFL) classroom. However, there is yet a growing need to carry out this strategy instruction within a process-based approach for a more engaging and effective listening tasks. Thus, the present study attempts to investigate whether metacognitive strategy instruction with pedagogical cycle enhances the 27 Thai EFL students' listening comprehension performance and their metacognitive awareness in listening (MAL). The study employed a sequential mixed-method and collected data from listening comprehension tests, questionnaire in MAL, observation field notes, and semi-structured interviews. The intervention was carried out in eight sessions of metacognitive pedagogical cycle aimed at improving the students' listening comprehension of short informative video items and their MAL. Results indicate a significant difference between the participants' pre- and post- listening scores and this result brought a significant relationship to their MAL. However, two (problem solving and directed attention) out of five MAL factors did not show significant relationship with those of the participants' listening comprehension performance. Qualitative findings reveal that the participants have welcomed the use of the intervention as they provide positive insights and opinions into how listening strategy use contributed to the success of their listening task processes.

INTRODUCTION

The overarching aim of the present study is to investigate the influence of metacognitive strategy instruction with pedagogical cycle on learners' listening comprehension performance and on the awareness of their metacognitive listening strategies. Metacognitive strategy instruction has gained a growing interest in the field of EFL over the last decade. Researchers in the field of Second Language Acquisition (SLA) have acknowledged that learners' awareness of their cognition, cognitive functions, and strategy use can have positive outcomes on learning tasks (Bozorgian, 2014; Darmawan

et al., 2020; Goh, 2008; Goh & Taib, 2006; Robillos & Phantharakphong, 2020; Thomson & Rubin, 1996; Vandergrift & Tafaghodtari, 2010). Vandergrift et al. (2006) claimed that training to improve learners' awareness of their metacognitive processes is based on an understanding of metacognition as a regulator of thinking. Metacognition, as coined by Flavell (1979) refers to an individual's awareness of thinking and learning: what we are thinking, how we are thinking in relation to a learning task or situation and why we are thinking in a particular way. It has been claimed that metacognitive strategies aid students to think about their learning process by way of using their cognition about their cognitive activities (O'Malley & Chamot, 1990). Learners with advanced levels of control over their metacognition would have better attention, problem-solving skills, more self-regulated, more apt to language acquisition and have improved reading and listening achievement (Flavell, 1979; O'Malley & Chamot, 1990).

Of the four skills in English language, listening is one of the most important skills in language learning and listening comprehension is a cognitive skill. Listening may improve through strategy acquisition. Learning and instruction of those listening strategies benefit EFL learners (Vandergrift & Tafaghodtari, 2010). However, applied linguists have reported that some teachers have considered teaching listening skill as an activity centred on the listening product, rather on the listening process. In Thailand, listening is only embedded in teaching speaking skill. In fact, listening activities are often used as a test of comprehension questions (*e.g.,* multiple choice test) and many students experience frustration (Robillos, 2019; 2020). Students may be left with unresolved difficulties in their own understanding of the subtleties of linguistic and non-linguistic stimuli if they are not taught to utilize effective strategies in listening. Failure to end this difficulty in comprehending listening input may lead students to lack of motivation (Graham (2017), non-participation in class, inactiveness, and consequently leads to ineffective listening (Robillos, 2019; 2020).

Many researchers have employed listening strategy instruction as an effective approach for teaching listening. For example: Goh (2008) reports that metacognitive instruction helps learners to deal with complexities in listening task; Vandergrift & Tafaghodtari (2010) claims that metacognitive strategies aid learners to improve their skills; and O'Malley & Chamot (1990) highlight that knowledge on metacognitive listening strategies enable learners how to monitor and regulate their listening development. Instruction of listening strategies is predominantly concerned with a course of instruction emphasizing a repertoire of strategies considered to be appropriate to accomplishing 'real world' listening tasks (Mendelsohn, 1994). However, only teaching the listening strategies alone scarcely help listeners towards effective listening. It necessitates a strategic, process-based approach to carry out these strategies in the classroom. A number of researchers (Bozorgian, 2014; Robillos, 2020; Vandergrift & Goh, 2012) suggested that teaching listening needs to follow a process-based approach such as the pedagogical cycle (Vandergrift & Goh, 2012) since it assisted the listening processes an increased control, assurance, and in due course, proficiency to students (Goh, 2008; Robillos, 2019; 2020). Pedagogical cycle is a sequence or order of learning activities that incorporate metacognitive raising awareness with listening input and

listening comprehension activities (Vandergrift & Goh, 2012). This sequence contributes to the learners' understanding of the context of the listening selection as well as the metacognitive strategies that are involved in the process. At this juncture, teachers have to bring ample opportunities to act upon the set of sequential procedures that are already devised (Bozorgian, 2014; Goh, 2008; ; Robillos, 2020; Vandergrift & Tafaghodtari, 2010), which would eventually lead listeners to plan (creating and checking predictions, establishing and addressing gaps in their understanding), to monitor (by checking and monitoring their performance), to evaluate, and reflect on their listening performance (Goh, 2008; Vandergrift & Tafaghodtari, 2010).

Literature Review

Metacognitive Strategy Instruction in EFL Listening

Metacognitive strategy instruction has a direct and positive influence on EFL students' listening performance (Bozorgian, 2014; Goh & Taib, 2006; Robillos, 2020; Vandergrift, 2003). Many previous scholars (*e.g.,* Goh, 2008; Robillos, 2019; Thomson & Rubin, 1996; Vandergrift & Tafaghodtari, 2010) confirmed that explicit instruction of strategies is vital and useful for EFL listeners. According to O'Malley & Chamot (1990), teachers who implement explicit teaching of listening strategies inform first the learners about what the strategies are. They then explain the benefits, and finally, teach them how to use the strategies properly and appropriately. Vandergrift (2003) claimed that one way of distinguishing effective listeners from others is that, how these effective listeners utilize metacognitive listening strategies.

SLA researchers, however, have recognized that learners' awareness of their learning processes, cognitive functions, and strategy use can have positive outcomes on learning tasks (Vandergrift et al., 2006). For example: a longitudinal study carried out by Thompson and Rubin (1996). They investigated the effect of process-based cognitive and metacognitive strategy instruction on students' listening proficiency. They reported that the treatment was successful manifesting that strategy training can improve listening comprehension performance on an alternative assessment, however, was unable to achieve statistical significance on a standardized Russian Proficiency Test. The 24 participants in experimental group underwent two years taught by the researchers through a process-based approach in which metacognitive strategies relating to it such as goal setting, predicting, and selective attention were linked with the cognitive strategies of listening. The 12 participants in the comparison group were exposed to the same listening selections and given the same amount of time engaged in listening activities but did not receive any intervention.

Goh and Taib (2006) on the other hand, investigated a very similar study focusing on the influence of metacognitive strategy instruction on higher elementary learners of EFL. Interestingly, the 10 participants were being taught of strategies for the purpose of enhancing their listening achievement on a primary school exit exam, and so both the instruction and the assessment included traditional "listen - answer" test and excluded pre-listening activities in order to mirror a testing environment. Interestingly, all of the students reported increased levels of confidence with listening tasks, all believed that

they had improved their L2 listening skills and enhanced their metacognitive awareness. However, the generalizability of the study findings was limited due to small sample size, and the absence of a comparison group.

Bozorgian (2014) likewise investigated the impact of metacognitive strategy instruction on the listening comprehension and metacognitive knowledge of male EFL learners in Iran. The participants were taught based on a guided lesson plan in metacognition including planning, monitoring, and evaluation over a period of eight weeks. IELTS listening module tests were utilized to assess the students' listening comprehension performance. The MALQ was also administered to the participants to track the development of their metacognitive awareness in listening. The findings of the study revealed that metacognitive instruction improved the students' listening ability. Nevertheless, it was found that the participants did not use metacognitive awareness significantly.

In addition, Fathi & Hamizadeh (2019) conducted a study that investigated the effect of listening strategy instruction to Iranian EFL learners' listening comprehension. 52 English literature students of two intact classes at Islamic Azad University were used as the participants of the study. The experimental group received the listening strategy instruction whereas the control group was taught with regular method of instruction. The listening section of IELTS was administered to assess the listening comprehension ability of the students before and after the intervention. Oxford Placement Test (OPT) was also administered to ensure the homogeneity of the participants with regard to their general English proficiency. The results revealed that the experimental group significantly outperformed the control group on the listening performance test, indicative that the listening strategy instruction was effective.

Another study conducted by O'Malley (1987) examined the influence of a strategic intervention on L2 listening. The 75 participants were divided into a metacognitive group, which received training in one metacognitive, one cognitive, and one socio-affective strategy per listening activity, one cognitive group, for whom the metacognitive strategy was removed, and one comparison group, which did not receive strategy training. The results did not reach statistical significance and was hypothesized that the short treatment time (50 minutes per day for two weeks) restricted the participants' ability to practice and become skilful in the use of such listening strategies. In addition, the participants unable to reflect and evaluate on the strategy they use because they were not given the opportunity to do so. Lastly, the strategies were not presented to learners in a cyclical format and was hypothesized that the single usage of metacognitive strategy may not be as effective as instruction which enhances students with control over all metacognitive processes.

Awareness of Metacognitive Listening Strategies and the Pedagogical Cycle

A number of researchers claimed that the use of pedagogical cycle increases learner's listening awareness. (Bozorgian, 2014; Robillos, 2019; Vandegrift & Tafaghodtari, 2010). A pedagogical cycle is a sequence of regulated learning activities and is believed to positively impacts the learners' listening achievement (Bozorgian, 2014; Goh, 2008;

Robillos, 2019; 2020; Vandergrift & Tafaghodtari, 2010). It involves five stages such as: planning and predicting stage, first verification stage, second verification stage, final verification stage, and reflective stage. A pedagogical cycle, capable of increasing metacognitive awareness of the listening process, is believed to impact the learners' listening achievement (Bozorgian, 2014; Goh, 2008; Robillos, 2019; 2020; Vandergrift, 2003; Vandergrift & Tafaghodtari, 2010; Wang, 2015) since this sequence contributes to the learners' understanding of the context of the text and, simultaneously, the metacognitive strategies that are involved in the process. Many researchers regard pedagogical cycle as a process-based approach for teaching listening (Bozorgian, 2014; Goh, 2008; Robillos, 2019). For instance: Goh (2008, p.192) promotes a process-based approach to listening instruction, in order to "explain the skills" involved in listening comprehension. She points out that many traditional techniques popular for teaching listening have been resistant to change. These "comprehension-based" listening practices such as the use of multiple-choice comprehension questions only focus on the product of listening rather than the listening processes and turn listening activities into mini-listening tests. She argues that teaching listening by testing listening has the potential to create anxiety and does little to prepare learners with strategies necessary to gain control over the listening process and listening improvement whereas a process-based approach would bring increased control, confidence, and proficiency to EFL listeners.

Wang (2015), on the other hand, conducted a small-scale intervention study that investigated the influence of metacognitive listening instruction to Chinese university EFL students' listening proficiency and metacognitive knowledge via metacognitive pedagogical cycle. The participants in the experimental group were employed of the strategy intervention. Results revealed that the metacognitive pedagogical cycle might positively affect learners' listening proficiency. The researcher also reported that reflective journal entries could possibly contribute to learners' improvement specifically on person, task and strategy knowledge. The study concluded that understanding how the metacognitive pedagogical cycle works can be able to cultivate self-regulated listeners.

Furthermore, a study on strategic intervention was conducted by Vandergrift and Tafaghodtari (2010). They used a model of listening instruction designed by Vandergrift (2003) and investigated not only the effect of this cycle on listening comprehension but also on the metacognitive awareness of high-beginner to low-intermediate level learners of French. Listening comprehension was assessed by using FSL placement test, making this one of the few studies to measure the effects of a strategic listening intervention solely with a standardized assessment. The researchers hypothesized that training of this nature would be more beneficial to less-skilled listeners considering the importance of formal and regular implemention of collaboration, reflection, and discussion on the metacognitive processes underlying listening comprehension.

Albeit many studies have been investigated with regard to the effective use of metacognitive strategy instruction in EFL listening skill (Bozorgian, 2014, Goh & Taib; 2006; O'Malley, 1987; Robillos, 2019; Thompson & Rubin; 1996; Wang, 2015;

Vandergrift & Tafaghodtari, 2010), very few studies (if any), to date, has concentrated on examining the effects of metacognitive strategy instruction through a process-based approach (*e.g., pedagogical* cycle) in EFL listening in the Thai educational context. In fact, most of the Thai researchers have emphasized on the use of metacognitive strategies in EFL reading skill (Chutichaiwirath & Sitthitikul, 2017; Seedanont & Pookcharoen, 2019), and in writing skill (Boonyarattanasoontorn, 2017). Moreover, the current study is deemed important in that it can provide pertinent data to those who are teaching in the field of EFL. The results of the study might serve as a lens in terms of helping them to improve their views of language learning especially in listening skill from the learners' standpoint and be able to give them more insights into the benefits of teaching EFL listening through metacognitive strategy instruction and thereby assisted them in improving students' listening comprehension skill and metacognitive listening awareness. With the purposes aforementioned, the study is guided by the following research questions (RQs):

RQ#1: Is there a significant difference between participants' pre- and post- listening comprehension performance?

RQ#2: Is there a significant difference between the participants' pre- and post-metacognitive listening strategy awareness?

RQ#3: Is there a significant relationship between the participants' listening comprehension performance and their awareness of metacognitive listening strategies?

RQ#4: How do the participants view the instruction of metacognitive strategies with pedagogical cycle in improving their listening comprehension and metacognitive listening awareness?

METHOD
Research design and samples

The present study employed a sequential mixed method type of research involving quantitative and qualitative parts (Creswell, 2008). While the quantitative data were used to answer whether metacognitive strategy instruction with pedagogical cycle influenced students' listening comprehension performance and their metacognitive listening awareness, qualitative data helped explore how students perceived their experiences and participation during the implementation the strategy intervention to help process their listening tasks.

Twenty-seven (27) first-year college students (N=7 males; N=20 females) at the study-university were purposively selected as samples. All the participants were given informed consent forms and were clarified regarding the nature and purpose of the study. The rationale for targeting this group is because these participants were just exposed to traditional teaching of listening. Since EFL listening pedagogies have become a field of increasing interest and have led to numerous paradigm shifts mandated by the Thai Ministry of Education, the researcher would like to investigate how metacognitive strategy instruction with pedagogical cycle impacts the students with

the goal of improving their listening comprehension performance and their metacognitive listening awareness.

Data Collection

The following are the methods used for data collection.

Pre- and post- listening comprehension tests were used to measure the relationship between metacognitive strategy instruction and the participants' listening performance of four short informative video items. The topics of such informative video items are aligned to the topics in their regular listening classes. The short informative videos utilized were approximately three minutes long. Furthermore, the pre-test in listening was given a week before the they are provided with the strategy intervention whilst, that of post-test was administered after the strategy intervention was implemented to the participants.

Metacognitive Awareness in Listening Questionnaire (MALQ). This questionnaire was used to evaluate the participants' metacognitive listening awareness. The MALQ questionnaire was adopted from Vandergrift et al. (2006). This composed of 21 items attempts to measure the five factors of metacognitive knowledge: (1) problem-solving strategies, (2) planning and evaluation strategies, (3) mental translation strategies, (4) person knowledge strategies, and (5) directed attention strategies, with 6, 5, 3, 3, and 4 items respectively. The participants were requested to respond to items by rating the following statements from "strongly agree" to "strongly disagree".

Observation field notes were used by the teacher-researcher to record any issues encountered during the course of the study. The notes might be used to aid further understanding of the event's occurrence. Moreover, an immediate writing of field notes was done after leaving the class to further avoid forgetting important details.

Interviews were conducted to provide more details about how often and when the respondents would use the metacognitive listening strategies after the strategy intervention. The semi-structured interview was carried out to examine the metacognitive strategies used by the participants towards improving their listening performance as well their metacognitive listening awareness.

Research procedures and the Intervention programme
Researchers carried out 8 sessions (90 minutes/session) of metacognitive instruction as an intervention programme with pedagogical cycle (Vandergrift & Tafaghodtari, 2010) that involves 5 stages namely: *planning and predicting stage*, *first verification stage*, *second verification stage, final verification stage, reflective stage*. The table below presents plan of activities:

Table 1
The Intervention Programme

Sessions	Metacognitive Strategies	Learning Activities
Sessions 1 & 2	Planning & Advance Organization	Definition and demystification of planning and continue to expand the term "planning" into its subcategories of learning strategies: advance organization, directed attention, selective attention and self-management.
		Participants are provided with examples on planning activities to highlight the importance of planning and advance organization in real life setting.
	Directed Attention	Reviewing the definition of planning and describe the second learning strategy - directed attention.
		Elaborating the function of planning in general and directed attention in particular.
Sessions 3 & 4	Selective Attention	Elaborating the definition and function of planning in general and selective attention in particular.
		Advising participants to concentrate on the topic and think of the keywords in the listening input.
		Suggesting the participants to consider the relationship between the speakers through the tone of their voice in addressing each other.
	Self-Management	Explaining the function of self-management and advising students to concentrate understand the listening selection.
		Convincing and inspiring the students to put everything aside and manage their focus on what speakers were uttering.
Sessions 5 & 6	Monitoring & Comprehension monitoring	Preparing the participants for the new category of metacognitive strategy: Monitoring strategies in general and comprehension monitoring in particular.
		Directing the participants to translate any odd or tough words and try to put them together towards understanding thoughts
	Auditory Monitoring	Discussing the term auditory monitoring and its function through clarifying its objectives in listening activity.
		Guiding the participants to use their knowledge of native language such as the sound, to relate to other words they already knew.
	Double Check Monitoring	Describing and demystifying double-check monitoring strategy.
		Advising participants to not concentrate on distractors that do not any relationship to the topic while listening.
Sessions 7 & 8	Evaluation & Performance Evaluation	Presenting and demystifying "Evaluation strategy" in general and specifically explain "Performance Evaluation."
	Strategy Evaluation	Discussing "strategy evaluation and advise participants to not pay much attention on the speaker's words.
	Problem Identification	Explaining the role of "problem identification" and describe how it works while listening.
		Guiding participants to spot the main idea necessitating task resolution.

Ethical issues

All participants were informed about the study and voluntarily provided their consent to participate in the research. There were no restrictions on gender, age, religion, language,

and nationality. There were no conflicts of interest; the principles of academic integrity were followed.

Pilot Study and Data Analysis

The pilot study was administered to 23 second-year college students majoring in the same program. The English proficiency of the pilot study participants was almost similar to the levels of proficiency of the respondents in the actual study. It was determined that the instruments were reliable and good to use as the Cronbach alpha value (.871) was high. Furthermore, the contents of all the instruments were validated by three experts who work at the study-university.

Quantitative data were evaluated based on descriptive and inferential statistics, while qualitative data were analysed using thematic analysis. The Descriptive Statistics such as mean, frequency, and Standard Deviation (SD) were calculated and presented in a tabular form. The t-test was used to compare the means of both sets of tests to indicate the effect of the strategy intervention employed. The t-test verified whether there is a significant difference before and after the strategy intervention is provided. Moreover, the Pearson-*r* was also used to determine the relationship between the metacognitive strategy instruction and those of participants' listening comprehension performance and their metacognitive listening awareness.

A thematic analysis was employed to analyse the data from the semi-structured interviews (Creswell, 2008). The data obtained from interviews in this study were transcribed, coded, and categorized according to thematic analysis to capture the participants' perceptions on the use of metacognitive strategy instruction with pedagogical cycle in processing their listening comprehension tasks. Table 2 presents the following essential themes that were emerged from the analysis of interviewees' responses after semi-structured interviews were conducted:

Table 2
Emerged themes

Theme 1	Sub-themes
Use of metacognitive strategies	-Metacognitive Planning strategies -more motivated -more confident -Metacognitive monitoring strategies -learn to track and confirm their comprehension during listening -eagerness to continue listening -Metacognitive evaluating strategies -develop positive thinking and problem-solving skills
Theme 2	Sub-themes
Challenges students have encountered in using Metacognitive strategies in Listening	-uses much time to finish the listening lesson/s -weak at naming the strategies they are using
Theme 3	Sub-themes
The importance of metacognitive strategy training on students' metacognitive listening awareness	-helpful for regulating listening process - improves better aural comprehension

FINDINGS

Quantitative Analysis

Overall test of difference on participants' listening achievement before and after the strategy intervention

Table 3 presents the overall test of difference between the participants' pre- and post - listening comprehension tests. The results, as demonstrated by the overall mean and SD scores before the intervention ($\bar{x}$ =8.75; SD=1.65) and after the intervention ($\bar{x}$=11.86; SD=1.41) revealed that when compared statistically, the differences between the two results were significant with a t-computed value of -15.0 which is less than the computed p-value 0.000. It can be hypothesized that metacognitive listening strategies that were taught to the participants suggest that these strategies helped students employ planning, monitoring and evaluation and aided them manage, direct, regulate and guide their listening task processes.

Table 3
Overall test of difference on the participants' listening achievement before and after the strategy intervention

Variables	Mean	Standard Deviation	t-computed value	p- value
Before the Intervention	8.75	1.65	-15.0	0.000
After the Intervention	11.86	1.41		

Participants' pre- and post- metacognitive awareness in listening (pre- and post-strategy intervention)

The table elucidates the test of difference on participants' metacognitive awareness in listening before and after the implementation of the strategy intervention. The overall mean and standard deviation (SD) scores of the participants' metacognitive listening awareness before the intervention ($\bar{x}$ = 2.23; SD = 0.15) and after the intervention ($\bar{x}$ = 3.49; SD = 0.16) revealed that when compared statistically, the differences of pre- and post-results were significant with a t-computed value of -13.12 which is less than the computed p-value of 0.000. This is an indication that the participants' awareness of metacognitive listening strategies was enhanced after the strategy intervention was provided on them.

Table 4
Test of difference on participants' metacognitive awareness in listening before and after the strategy intervention was provided

Metacognitive Awareness in Listening Strategies	Before Intervention		After Intervention		*t-* computed value	*p-* value
	Mean ($\bar{x}$)	SD	Mean ($\bar{x}$)	SD		
Planning and Evaluation	1.29	0.28	4.22	0.26	-43.31	0.000
Problem - Solving	2.08	0.27	4.45	0.25	-33.01	0.000
Directed Attention	1.93	0.30	3.61	0.26	-22.15	0.000
Mental Translation	3.21	0.29	4.69	0.30	-12.47	0.000
Person Knowledge	2.23	0.29	4.69	0.30	-22.12	0.000
Overall	2.23	0.15	3.49	0.16	-13.12	0.000

Test of relationships between listening achievement and metacognitive listening awareness after the intervention

Table 5 presents the test of relationship between the participants' listening comprehension performance and their metacognitive awareness in listening after the strategy intervention was implemented on them. As seen from the table, three of five factors that showed significant relationship with those of participants' listening comprehension achievement. These factors namely: planning and evaluation, mental translation, and person knowledge yielded t-computed values of 2.25, 4.11, and 2.11 respectively and are found higher than the *t*-critical value of 2.06. Conversely, two factors such as problem-solving and directed attention with *t*-computed values of 1.49 and 1.19 respectively were found lower than the *t*-critical value of 2.06, gaining no significant relationship between the mentioned variables.

Table 5
Test of relationship between participants' listening comprehension achievement and metacognitive awareness in listening

Factors of Metacognitive Awareness in Listening	Pearson-r value	t-computed value	t-critical value	Interpretation
Planning and Evaluation	0.43	2.25	2.06	Significant
Problem-solving	0.26	1.49	2.06	Not Significant
Directed Attention	0.27	1.19	2.06	Not Significant
Mental Translation	-0.68	4.11	2.06	Significant
Person Knowledge	0.33	2.11	2.06	Significant

Table 6 exhibits the overall test of relationship between the participants' listening comprehension performance and their metacognitive listening awareness after the strategy intervention is implemented. The overall results indicate a significant relationship between the two aforementioned variables as evidenced by the t-computed value of 2.41 is higher than the t-critical value of 2.06. This simply manifests that participants' increase their awareness to metacognitive listening strategies and make them more cognizant and enthusiastic in dealing with difficulties rather than just accepting their problems in listening tasks.

Table 6
Overall test of relationship between listening comprehension performance and the participants' metacognitive listening awareness

Variables	Pearson *r-value*	*t*-computed value	*t*-critical value
Listening Achievement			
Metacognitive Awareness in Listening	0.39	2.41	2.06

Qualitative Analysis

Theme 1: Impact of metacognitive strategy instruction

Sub-theme 1: The impact of metacognitive planning strategy (more motivated; more confident listeners)

Theme 1 pertains to the impacts of metacognitive strategy instruction particularly on planning stage. The results from the conducted semi-structured interviews exposed that

teaching metacognitive strategies enable the participants to be more driven in understanding the listening selection. Since the listeners are familiarized with the stages of metacognitive planning strategies, they could be able to yield experiences, *e.g.,* observing others performing tasks which could help stimulate their prior assumption of success to pursue their efforts in listening tasks. Furthermore, the participants answered that the planning activities such as advance organization assisted them to decipher listening task apart from decoding critical words and phrases, or the gist of the listening selection. They answered that it can increase their motivation and confidence which are necessary during early stages of the listening process. As narrated by respondents 1 and 7:

"…practicing those planning strategies make me confident that I can perform better listening tasks. When I share and ideas are quite similar to my peers, it gives me a confirmation that I am likely to understand what I am going to hear." R1

"…activating my prior knowledge could aid me read ideas that I suppose to hear. This motivates my eagerness to listen to the listening selection." R7

The above interview results were triangulated with researcher's field note as follows:

Field note 1
Students have become more motivated in the class after they were taught of metacognitive planning strategies. The activities in the planning stage triggers students' schemata towards the listening topic. In fact, they tend to be more assured and motivated to listen since they were scaffolded in applying those strategies. It is observed that metacognitive planning strategies are their most favorite especially techniques in predicting activities.

The teacher, in addition, encouraged the students to use planning strategies such as predicting, advance organization, directed attention, selective attentions,). For example, in advance organization, the teacher would first provide the students a short text relative to the listening selection. This planning activity triggers their background information about the topic and would start up the regulation of the listening process. After the short text is read and comprehended, they would be given an opportunity to share their understanding to their classmates. This collaboration activity aided the students to decipher the listening task. Respondent 9 conveyed her feelings with regard to collaboration activity expressing that she could be able to confidently share her thoughts to her peers. Interestingly, her confidence is boosted especially if what she shares were confirmed the same with her friends. She stated:

"...the collaboration activity assisted me to share my understanding of the short text to my peers. My confidence is increased especially if what I shared is similar or almost similar with my friends and other members of the group." R9

Field note 2 could be used to further validate the interview results afore stated.

Field note 2

Noticeably, the majority of the students were able to share their understanding to the listening topic during the collaboration activity during the first verification stage of the

pedagogical cycle. Some of the participants showed increased confidence in imparting what they understood from the listening topic.

Sub-theme 2: The impact of metacognitive monitoring strategy (learn to track and confirm their comprehension during listening; eagerness to continue listening)

The second stage is monitoring stage which is carried out through the second and final verification stages of pedagogical cycle. Since the teacher will play the listening selection one part after the other (the listening selection is divided into three parts), the students (while listening) are focused at finding out the information from the recording by writing/checking notes through checking their performance discussing, and sharing the information heard to their peers for detail accuracy and consistency. Some respondents used monitoring strategies while listening. As expressed by R1:

"...I always try to double-check and re-check while listening to the selection and do my best to comprehend one idea which I would lead me to understand the whole." R1

R6 also utilized the helpful monitoring strategy as it aided her to monitor her comprehension by going back to her written answers as the listening segments are played second and/or third time. She narrated:

"...We were told that listening selection will be played thrice. This gives me an idea that when the segment is played again, I tried to monitor by double-checking the words or keywords I wrote whether they're correct or not." R6

These monitoring activities (double-check monitoring and comprehension monitoring) provided students to keep on track, continue listening, and double-check their answers even while listening to the selection.

The following field note provides support to the above interview results.

Field note 3:
It is observed that some students have been practicing monitoring strategies while listening. They keep on going back to their listed words to check if they got the correct answers. Some students could not even wait the listening segments to be played the second or third time. They were eager to check if their answers were correct or not.

Sub-theme 3: The impacts of metacognitive evaluating strategy (listeners tend to be more driven and eager to continue to listen)

One respondent expressed her opinions with regard to the effective use of evaluation strategy in listening. These evaluation strategies are carried out through final verification and reflective stages of pedagogical cycle. Evaluating one's listening comprehension performance makes the listeners more willing to continue listening and try to do their best to obtain accurate answers. One respondent was aided to track her performance and identify the strategies she used effectively. She stated:

"...I see to it that I am right there when listening whether I got the answer or not. This attitude helps me become more optimistic. I also tried to trace back the successful and unsuccessful technique I used. I try to strengthen the effective strategies and try to eliminate the unhelpful ones." R13

Field note 4 was found in the same vein with the interview results expressed above.

Field note 4:

When the participants were taught of evaluation strategies, they became more willing to listen. This is manifested from the behaviours they showed in the class. One of them shouted "I made it!". Another also yelled happily, "OMG, I almost got it right, well, there will be more chances to do better, next listening activity". Some said, better do better next time! These statements indicated positivity. Students also tried to identify the different listening techniques they used and tried to maintain the effective techniques they used and also emulate the effective ones used by their peers.

Theme 2: Challenges the students have encountered using metacognitive listening strategies

Sub-themes: lack of time; weak at strategy nomenclature

Students often complained about insufficient time to apply those metacognitive strategies during the process of listening as the listening selection disappears once it is played. Normally, when the listening selection is played, it fades away soon after students listen and that they were unable to apply the strategies. Some students felt that time was not sufficient enough to apply strategies while listening to the audio. R10 and R3 expressed their opinions regarding unsuccessful listening performance due to insufficient time to use the metacognitive strategies they learnt in class.

"I encountered a problem about lack of time to practice the strategies because the listening audio fades once it is played. Although I was taught how to monitor but I already lost my enthusiasm to listen again that time." R10

"The strategies in listening helped me a little because I don't know when to use them especially in double-checking my answers because I don't have enough time to apply these strategies." R3

The results above coordinated with the researcher's field note:

Field note 5
It was noticed that the time being assigned in each strategy was not really adequate for the students to successfully finish it. The students struggled in applying the double-check monitoring strategy while listening to the selection. Some students tried to apply strategies but were unmindful that the listening selection already faded.

Moreover, many of the participants were already aware of how to use those metacognitive strategies in planning, however, few of them cannot be able to name those strategies. Qualitative results from R4, R11 and field note 5 could be used to triangulate each other.

"…Honestly, I am not so sure of the names of those strategies I am using." R4

Like R4, R11 also stated her feelings regarding proper names of the strategy she has been using. She narrated:

"...I am using some of those strategies already but I don't know how to call them." R11

Field note 6 matched those of the aforementioned statements:

Field note 6
Many of the participants have been using strategies in listening. However, it is noticed that when they were collaborating with their peers where they need to share the techniques they use in listening, some of them were only mentioning the way how the strategies were used but could not give its specific name or term.

Theme 3: The importance of metacognitive strategies with pedagogical cycle on their metacognitive listening strategy awareness

Sub-theme 1: Help regulate their listening process

Theme 3 pertains to the importance of metacognitive strategies on students' metacognitive listening awareness. The first sub-theme reveals that the metacognitive strategies help regulate their listening processes. The participants suggest that metacognitive strategies should be taught in the classroom to improve listening comprehension performance through a pedagogical cycle. R3 shared her opinion regarding how she became more aware of those metacognitive strategies after she learnt those strategies. R11 had similar opinion to R3 however, she stressed that it should have been taught to them before because it takes a longer time before the strategies could be used effectively. R3 and R11's verbatim transcripts and field note 8 show similar results.

"Those strategies should be taught in the regular listening classroom specifically the strategies in monitoring and evaluation. It effectively aided me to monitor, and evaluate my listening performance." (R3)

"If our teachers teach and expose us to these listening metacognitive strategies, we might become not only successful listeners but also effective ones. But it takes more time to master those listening strategies." (R11)

The results above corresponded with the field note written by the researcher:

Field note 7:
Majority of the students were happy applying those strategies and suggested that those strategies should be taught in the classroom because they are helpful in listening effectively. In fact, some of them recommended the teacher to make those strategies so familiar with them especially on monitoring and evaluation listening strategies because it will make them become more self-directed listeners.

Sub-theme 2: Improves aural comprehension
Metacognitive strategies with pedagogical cycle helped students enhance their awareness in listening strategies and eventually improved their listening achievement as R13 narrated:

"I now know how to focus properly on keywords or phrases that link to the main idea which helped me listen effectively. This strategy made me aware and improved my listening comprehension performance." (R13)

The above qualitative results either from the interviews or field notes indicated the significant impacts of metacognitive strategy instruction. All the respondents admitted that they improved their listening comprehension awareness using metacognitive strategies before, during, and even after listening. They also emphasized that metacognitive strategies should be taught through a strategic, process-based approach like the pedagogical cycle, and that they are given enough time to interact and collaborate with their peers.

DISCUSSION

This study investigated the impact of metacognitive strategy instruction within a strategic approach called pedagogical cycle (Vandergrift & Goh, 2012) on the students' listening comprehension achievement and metacognitive listening awareness. The study findings revealed that students' use of metacognitive tactics in listening contributed a noteworthy gain in their aural comprehension achievement. It indicates that metacognitive strategy training may have impacted the students in becoming mindful of the metacognitive strategies in listening and have become more cognizant of using those to plan, monitor, and evaluate their listening task processes. When students are trained with metacognitive strategies in listening, they are aided to improve their listening comprehension. The study finding is in the same vein with those of previous studies that have been investigated and conducted with the purpose of enhancing listening comprehension achievements in EFL or in second language. For example, the statistically significant results in Vandergrift & Tafaghodtari's (2010) qualitative study claiming that metacognitive listening strategy instruction to EFL students aided them to be more conscious of the listening processes and aided them to enhance their metacognitive knowledge in listening. The students were more likely to employ planning, monitoring and evaluation and aided them manage, direct, regulate and guide their listening task processes. Meanwhile, Thompson and Rubin (1996) also hypothesized that tactical and process-based metacognitive strategy training improved the third-year Russian students' listening comprehension skill. Wang (2015) also reported similar results where the improvement from the participants' listening comprehension was reported. He emphasized that it is important to understand the considerable benefits the metacognitive strategy instruction imparts and how the metacognitive pedagogical cycle works to improve the students' listening comprehension skill which would eventually help them to become self-regulated listeners.

When compared to the present study, however, the previous studies (Goh & Taib, 2006; Thomson & Rubin, 1996; Vandergrift & Tafaghodtari, 2010) were implemented the instruction of metacognitive strategies in listening in a longer duration of time. Vandergrift & Tafaghodtari (2010) for example, used 13 weeks and went through pedagogical cycle 13 times and the five extra exposures may have been notably pivotal. Apparently, the duration of the intervention used in current study has only lasted for 8 sessions. This is rather a short timeframe for metacognitive strategies to be implemented and be mastered by the students. Bozorgian (2014) and O'Malley (1987) reported similar limitation where the former utilized 50 minutes per day for two weeks and the

latter used 100 minutes in one week, which is found scarce to practice such metacognitive listening strategies. However, the treatment program is different from that of the present study since the former did not present the strategies to learners in a process-based format whereas, the latter implemented the treatment using a set of regulated approach. It might be claimed that when instruction of metacognitive strategies is carried out through a set of regulated approach, *i.e.,* a pedagogical cycle, a more effective and successful listening comprehension performance would be yielded by the learners (Robillos, 2019; Vandergrift & Tafghodtari, 2010).

Another distinguishing feature of the present study when compared to other studies is the use of various short informative video items used as authentic materials for the listening strategy instruction and listening strategy practice which were selected based on the students' age level and interests. Apart from it, the students' listening performance is being assessed from their written compositions as a manifestation of their comprehension, whereas, most of the previous researchers evaluated students' listening achievement based from their number of scores and the listening resources came mostly from IELTS listening (Bozorgian, 2014; Fathi & Hamidizadeh, 2019); TOEFL listening (Ginther, 2002) and other listening materials that necessitate students to respond via multiple choices, gap filling (Wang, 2015). Conversely, Cross (2009) used an authentic source in his intervention and experimented it with his Japanese second language adults, however, its use was limited to just one source – the BBC news videotexts.

With regard to students' metacognitive awareness in listening, the pre- and post- MALQ result yielded a statistically significant difference. The improvement on the factors of metacognitive listening awareness namely: planning and evaluation, solving-problem, directed attention, mental translation and person knowledge among the participants in the current study is in aligned with the results revealed from the study of Vandergrift & Tafaghodtari's (2010). They claimed that any improvement of metacognitive awareness in listening might be attributed to the metacognitive planning, monitoring, and evaluation being implemented to the students. However, in the present study, there were two out of five factors in MAL that have found no significant relationship after the participants were provided with the intervention. Among which were the 'problem-solving', and 'directed attention'. For the "problem-solving" factor, it might be due to the insufficient activities utilized during the planning phase which happened in the first stage of the pedagogical cycle, meaning, the participants' schemata might have not been triggered or activated to help them connect to the listening topic. Also, some participants were not able solve and come up with a solution on the problem of dealing with insufficient time while listening to the listening audio and that it lost their enthusiasm to continue listening. With regard to "directed attention" factor, one possible reason might be attributed to the fact that the students' focus of attention have diverted and distracted when they were having problems in understanding vocabularies, keywords, and phrases they hear from the listening selection. When students are distracted because of not understanding something on what they are listening to, they lose their concentration from listening and this affects their working memory capacity to analyze listening input, which in turn, could hardly resume or could not continue concentrating.

In addition, the current study finding supports the studies investigated by Goh & Taib (2006) and Vandergrift & Tafaghodtari (2010), who reported that the pedagogical cycle can be an effective process-based approach for improving the students' listening comprehension whose listening skill is low or less-experienced; the present study, however, examined a group of students who are English majors which manifests that they are advanced learners of English. It appears then that the impact on the use of the pedagogical cycle in listening is across a range of abilities and contexts (Goh, 2008)

CONCLUSION

The results of the present study provide additional empirical support for the notion that metacognitive instruction through a pedagogical cycle can be useful for helping EFL learners to improve their listening comprehension skill as well as their metacognitive listening awareness. Notably, a high metacognitive awareness in listening leads to an increased self-regulation and critical thinking (Robillos, 2020; 2021). Since metacognitive strategy instruction with pedagogical cycle addresses the students' planning, monitoring, and evaluating skills, it raises their metacognitive awareness and that it plays a chief function in assisting EFL learners on how to improve their listening comprehension skills more effectively and more successfully.

It is also important to note that most of the listening courses in Thailand is embedded only in the speaking course and are often used as a test of comprehension questions, meaning, focused on the listening product not on the listening process. Students may be left with unresolved difficulties in their own understanding of the subtleties of linguistic and non-linguistic stimuli if they are not taught to apply strategies in listening where they can metacognitively plan, monitor their performances, and solve their listening difficulties, evaluate their listening performances. It is important to give listening skill more attention in the classroom, explicitly teach the skill, and thus, it is suggested to be given ample time in the teaching of speaking and listening subject in the EFL context.

Having mentioned the value of metacognition in successful listening, it is of importance to recommend the instruction of metacognitive strategies through a pedagogical cycle in EFL classroom. The present study, however, is also constrained by a number of limitations: First, a small number of sample size of 27 participants. The demographic information is limited. Thus, the strategy intervention should be retested or replicated using a larger sample size. Second, future studies can also experiment with some methodological innovations and/or other process-based, pedagogical approaches along with other macro-skills in English, to further discover the many benefits of teaching metacognitive strategies to students in the EFL setting. On the other hand, the pedagogical implication of this study for teachers is that metacognitive instruction appears to provide a beneficial pedagogical method that can be helpful for skills development in listening lessons and activities; hence, indicating the necessity of teachers to pay more attention to a process-based, explicit, and systematic approach of training listening strategies in the EFL classroom.

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