

## Effects of Metacognitive Strategies and Gender Differences on English as a Second Language (ESL) Students' Listening Comprehension

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### ABSTRACT

This study investigates the effects of metacognitive strategies and gender differences on ESL students' listening comprehension. This study employed a mixed-method approach, specifically a quasi-experimental research design consisting of pre-test and post-test control, experimental groups and focus group interviews. Focus group interviews were conducted with the ESL students to get more information on how they applied the metacognitive strategies for listening comprehension. Sixty-two Lower Form Six students participated

in this study and were selected based on a random sampling technique from two schools in the Seremban district, Malaysia. Pre-test and post-test data were analysed using the paired *t*-test, and data from the focus group interviews were analysed thematically. Findings revealed that the students exposed to metacognitive strategies had a significant difference in scores with *t* (6.175),  $p < .001$  attained in comparison to

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the traditional method. However, there is no significant difference in gender influence on the effects of metacognitive strategies on students' listening comprehension with  $t(60) = 0.628$ ,  $p = .533 > .05$ . It can be inferred that gender does not influence the effect of metacognitive strategies on listening comprehension. Therefore, regardless of gender, if a student is exposed to such strategies, his or her listening comprehension will improve. Findings from the students' interviews showed three dimensions of the metacognitive knowledge applied: person knowledge, task knowledge and strategic knowledge. Findings suggest that these metacognitive strategies should be a part of the pedagogical approach and should be mastered by teachers to assist ESL students in improving their listening comprehension.

*Keywords:* ESL classroom, ESL students, listening skills, Metacognitive strategies

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## INTRODUCTION

Listening skills, in general, are important for students to develop proficiency as they demand listeners to understand and perform complex activities, such as discerning between sounds and elucidating intonation and emphasis. However, listening is difficult and challenging to acquire when learning a second language (Arnold, 2000; Cao & Lin, 2020; Goh, 2000). Listening comprehension has received the least attention in TESL, although it is one of the most crucial skills in language learning (Berne, 1998; Amado, 2005; Oxford, 2008; Rubin, 2005).

Graham (2006) found that students favour listening less because it is viewed as less critical for success than other skills. Despite the significance of growing listening comprehension abilities, L2 students seldom learn how to pay attention efficaciously (Berne, 1998; Vandergrift, 2007). Kurita (2012) stated that listening comprehension is a key aspect of language learning as it facilitates the development of writing, reading, and speaking skills in acquiring a new language. It is also recognised that students struggle to master listening comprehension as they must use certain mental processes to interpret the meaning of the information. These processes require them to speak English and are known as listening comprehension strategies. Cohen (2000) noted that some researchers in L2 listening reported that students could not answer listening activities effectively by employing appropriate metacognitive strategies.

## Challenges in Teaching Listening Comprehension

Nunan (1997) and Field (1998) pointed out that in English as a Second Language learning, the main focus of instruction was on assessing student ability to pay attention and listen to oral discourse that would require students to respond to comprehension questions based on the stimuli given, deprived of particular strategy or skill for accomplishing such activities. Listening was also labelled as the "Cinderella skill" (Nunan, 1997) or the "deserted" skill (Dean, 2004). Field (2008) reported that

teachers focused more on speaking in the latter part of the twentieth century because mastery of the skill is believed to benefit students' long-term needs compared to other language skills. Teachers are often misled into believing that students learn and acquire language better when they are exposed to speaking lessons. However, past studies have revealed that it is insurmountable to attain speaking skills without displaying the ability to listen (Barker & Watson, 2000; Cao & Lin, 2020).

Listening skill is often underestimated and neglected, given the challenges they appear in acquiring a second language. The listening skill is less favoured, as supported by past studies (Carrier, 2003; Chen & Starosta, 2009; Ozeki, 2000; Siegel, 2014) based on the evidence that teaching listening activities do not include a proper methodology with appropriate planning as compared to other language skills. Past studies showed that more research had emphasised listening skills for about two decades when some of the studies emphasized learners' self-regulated and deep processing strategies to process the aural input received. The current situation warrants the importance of mastering listening and speaking skills to improve communication skills that will assist the students in developing social skills compulsory in an authentic setting. This study investigated the effects of metacognitive strategies on ESL students' listening comprehension.

The objectives of the study are:

1. To investigate the effects of

metacognitive strategies on ESL students' listening comprehension.

2. To discover whether there is any significant difference between male and female ESL students' performance in listening comprehension.
3. To determine ESL students' perceived challenges in mastering listening comprehension based on metacognitive strategies.

This research will answer the following research questions:

1. Is there an effect of treatments (with or without metacognitive strategies) on improving ESL students' listening comprehension?
2. Does gender influence the effect of treatments (with or without metacognitive strategies) on improving ESL students' listening comprehension?
3. What are the students' perceived challenges in employing metacognitive strategies to improve listening comprehension?

### Null Hypotheses

1. The metacognitive strategies have no significant effect on ESL students' listening comprehension.
2. There is no significant gender effect on ESL students' performance in listening comprehension.

Therefore, metacognitive strategies would be beneficial for students to complete their listening tasks. It also assists the students in overcoming any barriers or

issues at any stage of the listening process. Students need exposure to metacognitive strategies to activate selected mental operations while accomplishing the listening tasks. Goh (2002) explained that mental operations are the strategies transferred to the students to attain listening comprehension. Metacognitive strategies play an important role in second language learning. They allow students to monitor and regulate their thinking to activate knowledge and comprehension ability verbally and non-verbally.

## LITERATURE REVIEW

In the Malaysian context, the teaching of English is more focused on reading and writing skills, mainly because these skills are tested in examinations (Sah & Shah, 2020; Gopal & Singh, 2020; Singh et al., 2017). It has led ESL students to place less importance on mastering listening skills. The listening component was not included and tested until late 2014 for the lower secondary examination (Krishnan & Kepol, 2013). However, the lower form examination format was changed to PT3, which included listening and speaking as important components to be assessed. Therefore, it is vital to find out what strategies teachers have incorporated for students to improve their listening comprehension abilities. Although the listening component was tested in the PT3 examination, students who continued to Form Six were required to sit for the Malaysian University English Test (MUET) and still faced problems scoring good grades

for the (800/1) Listening paper in the test. Sah and Shah (2020) reported that students lack interest in listening comprehension due to their inability to use and apply appropriate vocabulary. Teachers habitually carry out direct teaching methods and rote learning when teaching listening comprehension. The researchers claimed that teachers' beliefs could help direct their instructional strategies, which should be reflected through teaching practices. Through the beliefs projected by the teachers, the teaching of listening skills can be improved to directly assist the ESL students in scoring good grades for passing the (800/1) Listening paper on the test. Students need good listening exercises to acquire listening skills. Mohana and Shamara (2012) found that teachers still believe that listening is not an important skill to be mastered at higher learning institutions. Teachers and students were not keen on focusing and mastering listening skills; instead, they opted for reading and writing skills because these two components have a higher percentage in the MUET examination.

### Malaysian University English Test (MUET)

The Malaysian Examination Council (MEC) introduced the Malaysian University English Test (MUET) in 1999. MUET, known as the language proficiency test, is administered by the Malaysian Examination Council (MEC) and taken by pre-university students to assess their level of English proficiency for entry requirements into local public universities. It is taken by pre-

university students, namely Diploma and Form 6 students. Students need the MUET examination and certificate to secure a place to study at any Malaysian university. Students who sit for the MUET are evaluated based on a 6-band system — with band 1 for the weakest proficiency level and band 5+ signifying the highest proficiency level. The maximum score possible is a band 6. The MUET certificate is only valid for five years from the date of the results slip. Students are required to re-sit the MUET once the validation date expires. Qualification in MUET is recognised in Malaysia and Singapore only (MUET, 2022). The MUET is a standardised language proficiency test that tests student ability to communicate in English across all four language skills: listening, speaking, reading, and writing. All four skills are tested discretely, and a cumulative score is attained. Four main components are tested in the MUET test: 800/1 Listening, 800/2 Speaking, 800/3 Reading and 800/4 Writing. The MUET listening component comprised a small percentage (15%) in comparison to reading (40%), writing (30%) and speaking (15%). The MUET CEFR listening component is redesigned to assist the students in scoring better. There are thirty multiple-choice questions. Students can listen to each recording twice; each section consists of six questions. The present MUET CEFR listening component texts are easier to comprehend. The given listening texts range from A2 to B3 level of the CEFR. Despite revamping the listening component text based on the A2 to B3 range of the CEFR, students still have issues in answering the

paper as they lack the vocabulary and cannot activate good listening skills due to their low level of English proficiency.

### **Definition of Listening Comprehension**

Listening is an invisible mental process (Cao & Lin, 2020). The role of listening was studied by Ahmadi (2016), who agreed that listening is a tool learners use to aid language learning. Since then, listening has been fundamental in developing second language acquisition. Barker and Watson (2000) defined listening as ‘hearing, being attentive, comprehending and recalling,’ which includes behavioural and cognitive actions. Listening is also defined by Barker (1971) from four facets: Detecting, which discusses to process of receiving messages verbally and non-verbally; Interpreting, which explains the process of comprehending; Evaluating, which includes distinguishing fact from views and showing agreement or disagreement with speaker; Responding, directly involves expressing verbal and nonverbal signs in responding to information. Brown (1987) regarded listening as the process whereby listeners conclude an interpretation based on the information presented. As for listening comprehension, the listener has a greater task to do in which he or she must distinguish between sounds, recognise grammatical and ungrammatical structures, comprehend vocabulary in listening comprehension, explain intonation and stress, collect and remember all the information above to be interpreted with the social-cultural background of the utterance.

### **Definition of Meta-Cognitive Strategies**

Metacognition is the ability of knowledge to deliberately activate cognitive processes and products associated with them, such as the learning-related aspects of facts or information (Flavell, 1976, p. 232). Metacognitive processes are activation of cognition that assist in regulating one's thinking or learning. Metacognition is consciously applying the metacognitive ability to select, plan, evaluate, and revise cognitive aims, strategies, and goals. Past researchers have concluded that metacognitive strategies include self-planning, self-awareness, self-monitoring, self-regulation, and self-evaluation (Chamot & Rubin, 1994; O'Malley & Chamot, 1990; Anderson, 2002; Vandergrift, 2003; Thompson & Rubin, 1996). Metacognitive strategies are believed to improve student listening performance as indicated in the empirical evidence in past studies (e.g., O'Malley and Chamot, 1990; Thompson & Rubin, 1996; Vandergrift, 2003). Vandergrift (2003) implemented the practice of individual preparation, prediction, peer negotiation and discussion and post-listening reflections that build the development of metacognitive strategies in the novice beginner school context in France. Students were divided into two groups; the emphasis was on the benefits of predictions for successful and meaningful listening, the role of cooperation and teamwork with a peer for observing, and the development of confidence in the approach for promoting listening comprehension capability. O'Malley and Chamot (1990)

investigated the impact of metacognitive strategy among intermediate ESL high school students listening to presentations via metacognitive, cognitive, and socio-affective strategies. The second group received traditional instruction. Findings showed that, based on the test, the metacognitive group outperformed the cognitive group.

Teachers must guide students to develop and activate their metacognitive strategies. In other words, students need exposure to plan, track progress, monitor, evaluate, comprehend, and reflect upon what message is delivered through listening by applying prior knowledge of the information presented, discussed, and the ideas relayed verbally. The practice of metacognitive strategies has been established to guide students in assessing and monitoring their knowledge and comprehension ability verbally and non-verbally. Vandergrift (2003) investigated how strategies worked in fostering listening comprehension. It enabled the researcher to formulate a model of a skilled language listener. Vandergrift (2003) distinguished between good and poor listeners and concluded that this difference depends on the form of listening strategies applied. Good listeners depend less on translation and apply more metacognitive strategies, planning, questioning, and elaboration. Vandergrift (2003) recommended that teaching should be accompanied by strategic processing among effective and successful listeners (planning, assessing, monitoring, and evaluating).



### **Review of Studies on Listening Comprehension and Metacognitive Strategy Use**

According to Cao and Lin (2020), students need to be guided and taught to activate metacognitive strategies in listening. They investigated metacognitive strategies used in listening comprehension by a group of vocational students. Findings from the questionnaire showed that student ability to apply the metacognitive strategies in listening is relatively low. Female students exhibit a better ability to employ metacognitive strategies than male students. The metacognitive strategies include self-evaluation, self-regulation, planning, and monitoring. The findings revealed that students who attain a higher score apply these metacognitive strategies more regularly. Mohana and Shamara (2012) shared that the MUET results show that from 1999 to 2007, only 1% of the students scored the highest Band 5+, while another 50% obtained the two lowest competencies (Bands 1 and 2). This trend continued in 2009 and 2010 as more than half of the students scored the two lowest bands in all the MUET components.

Maton (2012) investigated factors behind poor performance by Bidayuh students in the MUET exam by distributing a questionnaire adapted from Gardner's Attitude/Motivation Test Battery (AMTB) (Gardner, 1985). The study showed that students were unclear and unaware of their attitudes and motivation towards learning English, which also explained their poor MUET test performance. The interview data

showed that students hardly prepared and studied independently for the MUET test, and they always depended on teacher input during attended classes to only discover its inefficiency. Krishnan and Kepol (2012) found that students exposed to explicit teaching on metacognitive strategies to improve listening comprehension performed better than students taught using the traditional method.

They reported that teachers should integrate metacognitive strategies as a valuable pedagogical method to enhance student listening comprehension. Christine (2002) investigated a discrete method incorporating metacognitive strategies for listening skills. Three main approaches were outlined: a) drafting, planning, and researching prior knowledge before class; b) listening for overall ideas, details, and the whole and aural test in class; c) writing a summary of the resources, monitoring and evaluation. She developed several ways for the metacognitive teaching model. Voon et al. (2019) investigated student needs to improve MUET performance and suggested that students' needs to learn English should be prioritised so that they can improve. Coskun (2010) studied metacognitive studies and their effects on the listening comprehension of English students. It was suggested that teachers integrate metacognitive strategies training into their instructional strategies to enhance student autonomy in learning. Applying metacognitive strategies can facilitate student independence and accountability for their learning, and consequently, students

are led to think about their thinking, which is the fundamental of metacognition.

### METHODOLOGY

In this study, for the first and second objectives, a quantitative method was used by carrying out a quasi-experimental pre-and post-test design involving two subjects, an experimental group and a control group, to investigate the effect of metacognitive strategies and gender differences on ESL students' listening comprehension. For the third research objective, focus group interviews were conducted with the ESL students to get more information on how metacognitive strategies improved their listening comprehension. Sixty-two Lower Form Six students participated in this study and were selected based on a random sampling technique from two schools in the Seremban district. In this study, SPSS software was used to generate data from a *t*-test based on gender between students and exposure to the metacognitive strategies that the teachers embedded into instruction.

### Research Design

This study employed a quasi-experimental design with quantitative and qualitative methodologies of semi-structured interviews with focus groups.

### Population and Sampling

There are eight Form Six Schools in Seremban. Participants in this study are 1020 Seremban State Form 6 Lower students. Thirty-two Lower Form Six students were selected as the samples employing a basic random sampling procedure based on the table created by Krejcie and Morgan (1970). Respondents were selected mainly to achieve the study's purpose (Hargreaves & Fink, 2006). Sixty-two Lower Form Six students from two schools in one selected district were involved in this study based on a random sampling technique. A simple random sample procedure means every member of the population has an equal and independent chance of being selected. This sampling technique was chosen as it was likely to produce a representative sample that avoids researcher bias in sample selection. Fifteen males and sixteen females were in the experimental group selected from school A. Eleven males and twenty females in the control group were selected from school B (Table 1). Leedy (1997) suggests that having a control group can strengthen validity. Cohen and Manion (1994) state that 31 students proposed in the control and treatment group is sufficient for statistical analysis. All these students have the same proficiency level.

Table 1  
*Profile of respondents*

	Respondent	Number	School	Total
Experimental group	Male	15	A	31
	Female	16		
Control group	Male	11	B	31
	Female	20		



Two teachers were assigned to teach the treatment and control groups. Teachers in this study were Teachers A and B, who had taught English and MUET for more than ten years. These teachers have experience marking the Malaysian Certificate of Education (MCE 111/9). Hence, these teachers have the vast expertise and experience required for this study. The selected teacher has been applying the metacognitive strategies as teaching tools to teach listening skills in the treatment group. Teacher A who taught the experimental group, was given a training session on metacognitive strategies. As for Teacher B, she was asked to teach the control group using the traditional teaching method for the listening lesson.

### **Instruments**

The study consists of a pre-test and post-test instrument. A pre-test was given at the start of the treatment to the control and experimental groups. The post-test was administered after four weeks to both groups. The pre-test assessed the students' initial listening skills, while the latter was administered to measure the effect of metacognitive strategies on ESL students' listening comprehension. The listening test consists of 30 multiple-choice questions for the pre-test and the post-test to show their level of listening ability. Students could listen to each recording twice and answer six questions in each section.

### **Data Collection**

As for the intervention, metacognitive strategies were outlined in the lesson plans.

A thorough description of metacognitive strategies was communicated to Teacher A before the treatment began to confirm the standardisation of content and strategies to be taught. Teacher A was asked to follow the instruction on metacognitive strategies for assisting students with listening comprehension (Table 2).

Teacher B used her lesson plan for the control group to deliver the listening skills using the traditional teaching method. Nevertheless, the topic of the listening materials given for the experimental and control groups was the same to avoid issues of bias.

Goh (2008) has developed five guidelines (Table 2) based on three dimensions of metacognitive knowledge adapted from Flavell (1979), namely person knowledge: the technique learners acquire to listen and the aspects that influence one's listening; task knowledge: the nature and the demands of listening tasks and strategy knowledge: effective ways to acquire or complete a listening task. Next, Brown (1987) categorised the metacognitive strategies that have been applied effectively in L2 research to assist learners in developing self-regulation during listening, namely planning: defining and determining learning aims by selecting the means to achieve them; monitoring: confirming the development of recounting the listening progress and evaluating: deciding the effort accomplished at analysing oral input or the result of a plan for cultivating listening capabilities. Table 2 describes the guidelines for listening based on the metacognitive strategies. During the

Table 2  
*Guidelines for implementing metacognitive strategies in second language learning from Goh (2008)*

Guidelines	Activities
Guideline 1 <b>Pre-listening Activities</b>	In groups, students activate their schemata to predict the content of the listening text. Then, students will write down the words, phrases, sentences, images, maps or diagrams as they hear to guess the theme.
Guideline 2 <b>Brainstorming</b>	Students will make notes and underline those words or phrases (including images, maps or diagrams) before they share their ideas with other groups.
Guideline 3 <b>Group-process based discussion</b>	In groups, students draw semantic webs to transfer ideas focusing on the relationships to show their understanding.
Guideline 4 <b>Task knowledge – Second listen</b>	Students will listen and check the relevance and accuracy of understanding against old and new information. They will distinguish parts that lead to confusion and disagreement and take down notes based on the text that needs specific attention.
Guideline 5 <b>Evaluation based discussion</b>	The teacher started the discussion to check the comprehension before discussing the effectiveness of strategies for learning and practice employed by the students.

pre-listening activity, the teacher will guide students to activate their schemata by asking them to predict the content or theme of the listening text. The next stage will involve students brainstorming ideas in monitoring their listening by taking down notes to confirm the addition of new information. Then the group undergoes group-process-based discussion where students will be asked to transfer ideas to show their understanding. Next, students listen and classify confusion or problem areas, and finally, the teacher will guide them toward comprehension and the metacognitive strategies practised.

For the treatment group, the intervention is given in the form of metacognitive strategies described clearly to them. First, a step-by-step guided listening lesson employing metacognitive strategies was demonstrated as the teacher followed the

strategies given before, while and after listening. The students were also trained to apply metacognitive strategies. Then, after four weeks, a focus group semi-structured interview was conducted with the experimental group students to get feedback and details about their views on exposure to metacognitive strategies to chart their listening skill progress.

### Data Analysis

**For Pre-Test and Post-Test.** Data from the pre-test and post-test from the control and experimental groups were analysed using the Statistical Packages for the Social Sciences (SPSS) 26.0. The mean score and standard deviation were also calculated based on the pre-test and post-test scores. A *t*-test analysis was done to uncover any significant differences in mean scores between the pre-test and post-test of the metacognitive

strategies given in the experimental group and the traditional teaching method in the control group.

For semi-structured interviews, thematic analysis was used to analyse the data obtained. Thematic analysis was selected due to its flexible nature, which allows for analysis in various ways (Braun & Clarke, 2012).

## RESULTS

The first research question asked:

- 1) Is there an effect of treatments (with or without metacognitive strategies) on improving ESL students' listening comprehension?

Results obtained from the paired-sample *t*-test for the Experimental Group provided the answer to this question.

As shown in Table 3, the paired samples *t*-test yielded a *t* of 6.850, which was statistically significant ( $p < .001$ ), indicating that the listening comprehension post-test means were significantly higher than the corresponding pre-test means among the experimental group students.

Table 4 shows that the paired samples *t*-test could not compute the *t* given that "the standard error of the difference is 0," as given in its statistical output. Hence, it indicates that the listening comprehension post-test means were similar to the corresponding pre-test means among the control group students.

The independent samples *t*-test yielded a *t* of 0.339, which was not statistically significant;  $t(60) = 0.339, p = .736 > .05$  (Table 5). It indicates that the experimental group (19.10) and the control group (18.94)

Table 3  
Results obtained from paired-sample *t*-test for the experimental group

Experimental Group		N	Mean	Std. Deviation	<i>t</i>	<i>p</i>
Pair	Pre-test	31	19.10	1.85	6.850	.000
	Post-test	31	22.45	2.54		

Table 4  
Results obtained from paired-sample *t*-test for the control group

Control Group		N	Mean	Std. Deviation	Std. Error Mean	<i>t</i>	<i>p</i>
Pair	Pre-test	31	18.94	1.90	.34	*	*
	Post-test	31	18.94	1.90	.34		

\* *t* cannot be computed because the standard error of the difference is 0.

Table 5  
Results obtained from the independent samples *t*-test for pre-test by group

Group	N	Mean	Std. Deviation	<i>t</i>	<i>p</i>
Experimental	31	19.10	1.85	.339	.736
Control	31	18.94	1.90		

did not differ significantly in listening comprehension pre-test means. Therefore, the null hypothesis (i.e., there is no significant effect of the metacognitive strategies on ESL students' listening comprehension) was rejected.

The *t*-test yielded a *t* of 6.175, which was statistically significant:  $t(60) = 6.175$ ,  $p < .001$  (Table 6). These results suggest that the experimental group's listening comprehension post-test mean (22.45) was statistically significantly higher than the mean obtained by the control group (18.94). Therefore, the null hypothesis (i.e., there is no significant effect of the metacognitive strategies on ESL students' listening comprehension) is rejected.

Does gender influence the effect of treatments (with or without metacognitive strategies) on improving ESL students' listening comprehension?

The *t*-test yielded a *t* of .628, which was not statistically significant:  $t(60) = 0.628$ ,  $p = .533 > .05$  (Table 7). It indicates no significant difference between the listening comprehension post-test means obtained by the male students (20.96) and

the female students (20.50). Therefore, the null hypothesis (i.e., there is no significant gender effect on ESL students' performance in listening comprehension) is accepted. Accordingly, it can be inferred that there is no gender effect on ESL students' listening comprehension. In other words, regardless of gender, if a student is exposed to metacognitive strategies, his or her listening comprehension will improve.

Students perceived challenges in the usage of metacognitive strategies to improve listening comprehension.

### Planning Stage

Findings from the students' focus group showed that they felt more confident answering listening comprehension questions using the metacognitive strategies they were taught. Student A mentioned that he always feels anxious answering the listening comprehension questions because of his inability to grasp and understand word meanings. He expressed that he was carefully taught how to strategise to have a proper plan on what to focus on before he listens. Student A said prior knowledge

Table 6  
Results obtained from the independent samples *t*-test for post-test by group

Group	N	Mean	Std. Deviation	<i>t</i>	<i>p</i>
Experimental	31	22.45	2.54	6.175	.000
Control	31	18.94	1.90		

Table 7  
Results obtained from the independent samples *t*-test for post-test by gender

Gender	N	Mean	Std. Deviation	<i>t</i>	<i>p</i>
Male	26	20.96	3.24	.628	.533
Female	36	20.50	2.55		

or background information is crucial to comprehend the topic. It was supported by student B, who mentioned that failure to grasp the meaning and needing prior background knowledge could be a problem in getting the appropriate answers for the listening test.

### **Guessing and Predicting the Content**

The students shared that when the teacher asked them to activate their schemata to identify the content or theme of the listening text, it facilitated answering the listening comprehension questions. Students A, B, C and D concur that writing down the words or phrases can help them remember important points later when they must select the correct answer. However, they did not deny that practising the metacognitive strategies was quite challenging as they had to consider other factors, such as time, anxiety, and the fear of answering the questions wrongly can cause them to make mistakes while listening to the text. In addition, underlining keywords, reading and rereading the questions with limited time, and relating to background knowledge require great planning. Student E shared that she focused on each word, phrase, and sentence carefully to ensure she got all the important points. She emphasised the importance of writing down the general point and other related points to the given listening text.

### **Monitoring**

All the students expressed that they had difficulties identifying the problems when

they were instructed to listen and answer the comprehension questions. First, they mentioned they had to understand the requirement of the listening task. Next, they must listen carefully for details and infer information. The teacher-guided this step before the experiment began. They also shared that they must monitor their comprehension progress as they listen to develop their listening capability. Another issue they encountered was in terms of grasping linguistic abilities and also vocabulary. Three students (students B, E and F) shared that comprehending the listening task became more difficult when they were unsure what to notice or whether to focus on difficult words, the gist of the text or the keywords. This dimension was highlighted by Flavell (1979) that students must understand task knowledge that focuses on the demands of listening tasks.

### **Evaluation**

These students (A, B, C, D, F, G, H, I, J, K) shared that they merely answered the listening comprehension questions without applying any strategies before this. They applied these strategies after the teacher's guidance. They expressed that carefully analysing and evaluating the listening text can assist them in monitoring listening comprehension. When the students apply these strategies, they become more confident and accountable to take charge and self-regulate their learning. Evaluation and strategic knowledge assist students in realigning the goals of the listening task and chart plan to monitor their listening

capability. Some of these students (L, M, O) said that it is difficult to monitor and evaluate these strategies as they depend on memorising points.

## DISCUSSION

### **Application of the Three Dimensions of the Metacognitive Knowledge**

This study reports the metacognitive knowledge and the metacognitive strategies used by the students based on the training given. The students applied the three dimensions of metacognitive knowledge: person, task, and strategic. As for metacognitive knowledge, the students employed the planning, monitoring, and evaluating strategies beneficial for assisting students in developing self-regulation during listening. These results align with results of past studies (e.g., Al-Alwan et al., 2013; Bidabadi & Yamat, 2011; Carrier, 2003; Goh, 2008; Vandergrift, 2003) showing that metacognitive strategies, when guided and trained appropriately to students assist in improving their listening comprehension capability. The results show that ESL students with proper guidance on metacognitive strategies are quick to learn and will know when to apply them. Teachers must stress the key role of listening skills in L2 acquisition. Listening skill demands equal importance with other skills for effective oral communication.

### **Activation of the Metacognitive Strategies**

Students are not taught to work and improve their listening skills. As a result, they have

issues activating the appropriate strategies for listening comprehension. They become nervous when they know they risk failure to perform well in the listening activities. They fear negative comments from peers and teachers. As a result, students struggle to regulate their learning goals and cannot chart progress for listening comprehension. They know that they must listen harder to get the scores. This situation is apparent in the Malaysian education system as the students opt for rote learning and prepare merely for examination purposes. Thus, they neglect and put less emphasis on listening comprehension. Nevertheless, listening skill is important for students to develop effective communication. Teachers must equip students and find ways to involve students actively by exposing them to metacognitive strategies for teaching listening (Vandergrift, 2003; Vandergrift & Goh, 2012).

## CONCLUSIONS

Teaching listening to ESL learners has been revisited using metacognitive strategies. Past studies have revealed that incorporating these strategies can enhance ESL students' listening comprehension. The findings of this study show that applying metacognitive strategies will significantly influence ESL student listening comprehension. The findings imply that students need sufficient guidance to ensure mastery of listening comprehension skills in acquiring a second language. When teachers neglect the teaching of listening, students do not perform well in academics. Implementing these strategies requires effort and collaboration from both



teachers and students. Teachers can motivate students in various ways. Although teaching students to listen can be challenging, students need proper guidance and support to succeed in mastering listening skills. The present study was conducted with Sixty-Two Lower Form Six students from two schools in Seremban district, Malaysia.

Further research can be carried out with more participants to explore the effect of metacognitive strategies on students at the tertiary level. However, the significant findings in this study show that students' immense engagement in mastering the metacognitive strategies can facilitate them in improving their listening comprehension capability, specifically in the second language learning contexts. Conversely, students not exposed to these metacognitive strategies will struggle to master listening comprehension, impacting their academic performance.

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## REFERENCES

- Ahmadi, S. M. (2016). The importance of listening comprehension in language learning. *International Journal of Research in English Education, 1*, 7-10.
- Al-Alwan, A., Asassfeh, S., & Al-Shboul, Y. (2013). EFL Learners' Listening comprehension and awareness of metacognitive strategies: How are they related? *International Education Studies, 6*(9), 31-39. <https://doi.org/10.5539/ies.v6n9p31>
- Amado Gama, C. (2005). *Integrating metacognition in interactive learning environments*. [Unpublished Ph.D. Unpublished Thesis]. University of Sussex.
- Anderson, N. J. (2002). *The role of metacognition in second language teaching and learning*. Center for Applied Linguistics.
- Arnold, J. (2000). Seeing through listening comprehension exam anxiety. *TESOL Quarterly 34* (4), 777-786.
- Barker, L. L., & Watson, K. W. (2000). *Listen up. How to improve relationships, reduce stress, and be more productive by using the power of listening*. St. Martin's Press.
- Barker, L. L. (1971). *Listening behavior*. Prentice Hall.
- Bidabadi, F. S., & Yamat, H. (2011). The Relationship between listening strategies used by Iranian EFL freshman university students and their listening proficiency level. *English Language Teaching, 4*(1), 21-32.
- Berne, J. E. (1998). Examining the relationship between L2 listening research, pedagogical theory, and practice. *Foreign Language Annals, 31*(2), 169-190. <https://doi.org/10.1111/j.1944-9720.1998.tb00566.x>
- Brown, G. (1987). Twenty-five years of teaching listening comprehension. *English Teaching Forum, 25*(4), 11-15.
- Braun, V., & Clarke, V. (2012). Thematic analysis. In H. Cooper, P. M. Camic, D. L. Long, A. T. Panter, D. Rindskopf, & K. J. Sher (Eds.), *APA handbook of research methods in psychology, Vol. 2: Research designs: Quantitative, qualitative, neuropsychological, and biological* (pp. 57-71). American Psychological Association. <https://doi.org/10.1037/13620-000>

- Cao, Z., & Lin, Y. (2020). A study on metacognitive strategy use in listening comprehension by vocational college students. *English Language Teaching, 13*(4), 127-139. <https://doi.org/10.5539/elt.v13n4p127>
- Carrier, K. A. (2003). Improving high school English language learners' second language listening through strategy instruction. *Bilingual Research Journal, 27*(3), 383- 408. <https://doi.org/10.1080/015235882.2003.10162600>
- Cohen, A. D. (2000). *Strategies in learning and using a second language*. Foreign Language Teaching and Research Press.
- Cohen, L., & Manion, L. (1994). *Research methods in education* (4th ed.). Routledge.
- Coskun, A. (2010). The effect of metacognitive strategy training on the listening performance of beginner students. *Novitas-ROYAL (Research on Youth and Language), 4*(1), 35-50.
- Chamot, A. U., & Rubin, J. (1994). Comments on Janie Rees-Miller's "A critical appraisal of learner training: theoretical bases and teaching implications": Two readers react. *TESOL Quarterly, 28*(4), 771-776. <https://doi.org/10.2307/3587559>
- Chen, G. M., & Starosta, W. J. (1996). Intercultural communication competence: A synthesis. In B.R. Burelson (Ed.), *Communication yearbook 19* (pp. 353-383). Sage Publications.
- Dean, G. (2004). *Improving learning in secondary English*. David Fulton Publishers.
- Field, B. T. J. (1998). European dimensions: Education, training and the European Union. *Higher Education, 38*, 375 (1999). <https://doi.org/10.1023/A:1003719925887>
- Gardner, R. C. (1985). *Social psychology and second language learning: The role of attitudes and motivation*. Edward Arnold.
- Mulyadi, D., Aimah, S., Arifani, Y., & Singh, C. K. S. (2022). Boosting EFL learners' listening comprehension through a developed mobile learning application: Effectiveness and practicality. *Applied Research on English Language, 11*(3), 2322-5343.
- Field, J. (2008). *Listening in the language classroom*. Cambridge University Press.
- Flavell, J. H. (1976). Metacognitive aspects of problem solving. In L.B. Resnick (Ed.), *The nature of intelligence* (Hillsdale, NJ: Erlbaum): 231-35. Lawrence Erlbaum Associates.
- Flavell, J. H. (1979). Metacognition and cognitive monitoring: A new area of cognitive development enquiry. *American Psychologist 34*(10), 906-911. <https://doi.org/10.1037/0003-066x.34.10.906>
- Goh, C. C. M. (2000). A cognitive perspective on language students' listening comprehension problems. *System, 28*(1), 55-75. doi:10.1016/S0346-251X(99)00060-3
- Goh, C. C. M. (2002). Exploring listening comprehension tactics and their interaction patterns. *System, 30*(2), 185-206. [https://doi.org/10.1016/S0346-251X\(02\)00004-0](https://doi.org/10.1016/S0346-251X(02)00004-0)
- Goh, C. (2008). Metacognitive instruction for second language listening development: Theory, practice and research implications. *RELC Journal, 39*(2), 188-213. doi:10.1177/0033688208092184
- Gopal, R., & Singh, C. K. S. (2020). Arising reading patterns in understanding literary texts. *Studies in English Language and Education, 7*(2), 407-420. <https://doi.org/10.24815/siele.v7i2.16663>
- Graham, S. (2006). Listening comprehension: The learners' perspective. *System, 34*(2), 165-182. <https://doi.org/10.1016/j.system.2005.11.001>
- Hargreaves, A., & Fink, D. (2006). Redistributed leadership for sustainable professional learning communities. *Journal of School Leadership, 16*(5), 550-565. <https://doi.org/10.1177/105268460601600507>
- Krishnan, L. K., & Kepol, N. (2013). Instruction of metacognitive strategies to enhance students'

- listening comprehension. *International Journal of Assessment and Evaluation in Education*, 3, 61-76.
- Kurita, T. (2012). Issues in second language listening comprehension and the pedagogical implications. *Accents Asia* 5(1), 30-44.
- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30(3), 607-610. <https://doi.org/10.1177/001316447003000308>
- Leedy, P. D. (1997). *Practical research: Planning and design* (6th ed.). Prentice-Hall.
- Maton, M. (2012). *Factors affecting the poor performance of form six Bidayuh students in MUET exam / Menon Maton*. Master's thesis, Universiti Teknologi MARA.
- Mohana, N., & Shamara, R. (2012). Teaching MUET, not English: A study of the washback effect of the Malaysian University English Test (MUET). In Z. M. Don (Ed.), *English in multicultural Malaysia: Pedagogy and applied research*. (pp. 49-62). University of Malaya Press.
- Nunan, D. (1997). Designing and adapting materials to encourage learner autonomy. In P. Benson, & P. Voller (Eds.), *Autonomy and independence in language learning* (pp. 192-203). Longman.
- O' Malley J. M., & Chamot, A. U. (1990). *Learning strategies in second language acquisition*. Cambridge University Press.
- Ozeki, N. (2000). *Listening strategy instruction for female EFL college students in Japan*. [Doctoral thesis: ProQuest Dissertations Publishing]. Indiana University of Pennsylvania.
- Oxford, R. L. (2008). Hero with a thousand faces: Learner autonomy, learning strategies and learning tactics in independent language learning. In S. Hurd & T. Lewis (Eds.), *Language learning strategies in independent setting* (pp. 41-64). Multilingual Matters. <https://doi.org/10.21832/9781847690999-005>
- Rubin, J. (2005). The expert language learner: A review of good language learner studies and learner strategies. In K. Johnson (Ed.), *Expertise in second language learning and teaching* (pp. 37-63). Palgrave Macmillan.
- Sah, F. M., & Shah, P. M. (2020). Teachers' beliefs and practices in teaching listening. *Creative Education*, 11(2), 182-195. <https://doi.org/10.4236/ce.2020.112013>.
- Siegel, J. (2014). Exploring L2 listening instruction: Examinations of practice. *ELT Journal*, 68(1), 22-30. <https://doi.org/10.1093/elt/cct058>
- Singh, C. K. S., Lebar, O., Kepol, N., Rahman, R. A., & Mukhtar, K. A. M. (2017). An observation of classroom assessment practices among lecturers in selected Malaysian higher learning institutions. *Malaysian Journal of Learning and Instruction*, 14(1), 23-61. <https://doi.org/10.32890/mjli2017.14.1.2>
- Thompson, I., & Rubin, J. (1996). Can strategy instruction improve listening comprehension? *Foreign Language Annals*, 29(3), 331-342. <https://doi.org/10.1111/j.1944-9720.1996.tb01246.x>
- Vandergrift, L. (2007). Recent developments in second and foreign language listening comprehension research. *Language teaching*, 40(03), 191-210. <https://doi.org/10.1017/s0261444807004338>
- Vandergrift, L. (2003). From prediction through reflection: Guiding students: Through the process of L2 listening. *Canadian Modern Language Review*, 59(3), 425-440. <https://doi.org/10.3138/cmlr.59.3.425>
- Vandergrift, L., & Goh, C., M. (2012). *Teaching and learning second language listening: Metacognition in action*. Routledge.
- Voon, B. H., Teo, A. K., & Voon, J. E. (2019). Improving the performance of MUET students in report-writing: From experiment to actions. *Asian Journal of University Education*, 5(3), 175-186. <https://doi.org/10.24191/ajue.v15i3.7568>

