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The Impact of Metacognitive Instruction on EFL Low-level Learners' Listening Performance and Metacognitive Awareness

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The teaching of listening skills in English as a Foreign Language (EFL) classrooms has been dominated by a product-based approach, in which the focus is on obtaining correct responses. However, there is a need to engage learners in the process of listening with a metacognitive approach, so they become effective listeners. Therefore, this study attempts to investigate the impact of metacognitive instruction on the listening performance and metacognitive awareness of two groups of EFL low-level learners: skilled listeners and less-skilled listeners. The participants were twenty male and female learners enrolled in an A1 general English course. The study employed both quantitative and qualitative data. After a listening pre-test to measure learners' listening performance before the intervention, learners were divided into skilled listeners and less skilled listeners and were asked to complete both the Metacognitive Awareness of Listening Questionnaire (MALQ) and an open-ended questionnaire to explore their metacognitive awareness prior to the instruction. Learners completed both two standardized listening tests as pre-test and delayed test to determine the effect of the instruction on their listening performance, as well as the MALQ and the open-ended questionnaire to find out their metacognitive awareness after the intervention. The results of the two listening tests revealed that less-skilled listeners' scores were significantly higher after the intervention. Furthermore, the results of the MALQ and the open-ended questionnaire showed that both types of learners made a significant improvement in two (person knowledge and strategy use) MALQ factors, suggesting that the intervention was effective in improving the listening performance and metacognitive awareness of the participants.

Keywords: metacognition, listening instruction, EFL, classroom research, teaching L2 listening

INTRODUCTION

Listening plays a pivotal role when it comes to learning a foreign language because it helps learners receive and interact with the aural input and it facilitates the development of other language skills (Vandergrift & Goh, 2012). According to Graham (2006), this skill is often regarded as the most challenging one which tends to cause anxiety among learners, and therefore might lead them to perform poorly in the classroom. One reason

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for this is that listening comprehension is a complex process which involves not only receiving acoustic input but also having the ability to derive meaning from the listening input (Rost, 2011; Zhang, 2001). In this way, an array of mental processes, from discriminating sounds to fully understanding the speakers' message, is required. This poses a challenge for foreign language learners.

It seems that these complexities in listening comprehension affect low-level Peruvian EFL learners, particularly those whose listening lessons are sometimes neglected or taken for granted. Moreover, listening lessons in most language centers and secondary schools focus on listen-and-do activities in which no sufficient support is given to engage learners in the listening process. This, in consequence, leads learners to regard listening as the most difficult skill to master in their language learning process.

What is needed, therefore, is a listening instruction with a focus on the process of listening rather than on the product. In this regard, Nguyen and Abbott (2016) consider that a process-oriented approach for listening instruction is required to avoid the predominance of fill-in-the blanks tasks which focus on testing learners' comprehension.

An instructional approach which caters for the learners' listening process and develops the use of strategies is the metacognitive listening instruction proposed by Vandergrift and Goh (2012). In this approach, learners engage in a metacognitive pedagogical cycle which allows them to develop their awareness of the metacognitive process and their strategy knowledge and use in listening. As such, by engaging learners in this process involves breaking the mold of average listening lessons, and therefore the aim of the present study is to establish whether this can result in an improvement in their listening performance. The current study also seeks to fit into the previous studies regarding the metacognitive approach for listening instruction over the last 10 years (Mahdavi & Miri, 2019; Matfoon & Alamdar, 2020; Movahed, 2014; Rahimirad & Shams, 2014; Vandergrift & Tafaghodtari, 2010).

Literature Review

Metacognitive Awareness and Instruction

Metacognition refers to a psychological construct which represents a person's ability to think about their own thinking, monitor, evaluate, and make plans in the service of a concrete goal (Flavell, 1979; Tobias & Everson, 2009), that is, an awareness of how and what we are thinking in relation to a particular task. The term metacognitive awareness, as defined in the work of Vandergrift and Goh (2012), refers to the manifestation of metacognition when focusing on a particular cognitive or learning situation. Although Flavell (1979) considers that it is demonstrated in two ways: metacognitive experience and metacognitive knowledge, Vandergrift and Goh (2012) suggest a third way of demonstrating metacognitive awareness: the use of strategies.

As the skill of listening has been reported as the most difficult to acquire since it is often centered on the product, rather than on the process, metacognitive awareness in the listening process can benefit learners, so they become aware of how they listen. Thus, the components of metacognitive awareness will be discussed in relation to the listening process.

The first component of metacognitive awareness is metacognitive knowledge which refers to a storage that contains what learners know about learning, comprising their personal beliefs regarding language learning. This entails three types of knowledge about metacognition: person, task, and strategy (Flavell, 1979). Person knowledge refers to what learners believe about themselves and their beliefs about what leads them to success or failure in listening. Task knowledge refers to knowledge about the nature, demands and purposes of a learning task. In the case of listening, it involves knowledge about the kinds of spoken texts and factors that influence listening performance (e.g., speaker, text, strategy). The third type of knowledge is strategy knowledge which is knowledge about the strategies that might be helpful when completing a task, and their appropriateness for the different listening tasks.

The second component is metacognitive experience which refers to "a thought or feeling that occurs to a person during and about the main thought" (Vandergrift & Goh, 2012, p. 86). This involves learners realizing, for example, that they do not know certain words they hear, but then remembering a strategy which they can use to overcome that problem. Metacognitive experience can certainly influence the development of the other two factors: metacognitive knowledge and the use of strategies.

The third component of metacognition is strategy use, which refers to the individual's use of different strategies to achieve goals and thus make the listening process easy, enjoyable, and manageable. Apart from drawing on strategy knowledge, strategy use also entails being aware of when and how to use certain strategies for the different listening tasks.

Regarding metacognitive instruction, according to Vandergrift and Goh (2012), it is an approach to L2 listening instruction in which learners are engaged in listening and thinking about their listening through an active process of metacognition. The instruction, thus, guides learners 'through important metacognitive processes such as prediction, verification, monitoring, problem-solving and evaluation' (p. 13) as well as teaching effective strategies for managing comprehension. Goh (2008) states that metacognitive instruction can heighten this process since learners need to show awareness of gaps in comprehension and act by using different strategies to bridge those gaps. The metacognitive instruction in the listening process can also help learners reflect on their learning before, during, and after a listening experience, so that they can manage their listening process easily.

This approach differs from the widely dominated product-oriented approach for teaching listening, which relies primarily on answering comprehension questions and repeating details of what they have heard. Field (2008) points out that a focus on the product of listening does little to help learners gain listening competence as they are merely tested in listening comprehension.

Metacognitive Pedagogical Cycle

The metacognitive pedagogical sequence applied in the present study is based on the work of Vandergrift and Goh (2012) and refers to the way in which process-based lessons are planned and executed. Learners are expected to become skilled listeners and

develop metacognitive awareness by engaging in the following processes: planning, monitoring, solving comprehension problems and evaluating.

The metacognitive sequence follows several stages in which the different metacognitive processes are embedded: pre- listening (planning, predicting stage), first listening (monitoring, evaluation, and planning), second listening (monitoring, evaluation and problem-solving), third listening (final verification stage using the transcript of the oral texts), and the reflection or goal-setting stage (evaluating and planning). With the metacognitive approach. learners will become better listeners as they learn to manage and self-regulate their listening process (Vandergrift & Goh, 2012) by obtaining knowledge about themselves (person knowledge), as well as about the nature and demands of L2 listening (task knowledge), while they also and become aware of the strategies at their disposal to approach different listening tasks (strategy knowledge).

Previous Studies

Different studies have investigated the effect of the metacognitive approach for listening instruction on low-level learners, with the results suggesting that there is a positive impact on learners' listening performance. The studies discussed here are related to EFL contexts, from beginner to pre-intermediate learners.

In a recent study with low-level learners, Mariscal and Montero (2018) implemented the metacognitive sequence with A2 level students from an Ecuadorian public university. They conducted the research with an experimental group and a control group with pre- and post-listening tests. The results revealed that there was a moderate success for the experimental group compared to the control group. Regarding the MALQ questionnaire, the experimental group showed an improvement in three out of the five metacognitive strategies.

In the same line of enquiry, Movahed (2014) carried out a research project in the Iranian context and investigated the impact of metacognitive instruction on the listening performance and listening anxiety among EFL learners. The participants were 55 students studying English translation and were divided into experimental and control groups, and the experimental group was exposed to the metacognitive instruction for eight sessions. The researcher used a standardized test, the MALQ, and the Foreign Language Listening Anxiety Scale (FLLAS), with the results showing that metacognitive instruction improved learners' listening proficiency, increased their metacognitive awareness. and reduced their anxiety.

Likewise, Robillos (2019) explored the effect of metacognitive instruction and metacognitive awareness on a group of Thai EFL learners. The study was conducted with a single group of learners using a pre-and post-test. The findings revealed that there was a significant development in learners' listening comprehension as well as positive responses in the use of metacognitive strategies. Furthermore, Robillos and Bustos (2022) conducted a small-scale study that investigated the influence of metacognitive pedagogical sequence on listening comprehension skills and metacognitive awareness. Results revealed that the metacognitive cycle had a positive effect on learners' listening skills and contributed to a significant improvement in most of the MALQ factors.

Another study conducted by Fathi and Hamizadeh (2019) investigated the effect of listening strategic instruction on two groups of learners. Similar to this study, standardized tests were used such as the IELTS. The results revealed that the experimental group showed a significant improvement in the listening test, indicating the effectiveness of the instruction.

These studies indicate that metacognitive listening instruction has a positive impact on learners' listening comprehension and their metacognitive awareness. However, most of the studies discussed have adopted quantitative approaches to measuring listening performance by using standardized tests and questionnaires such as the MALQ. Therefore, it is necessary for more studies to use both a quantitative and qualitative approach to shed light on the effectiveness of metacognitive instruction. This study seeks to bridge that gap by adopting a quantitative and qualitative approach in the research process.

Research Questions and Hypothesis

1.What is the level of listening comprehension before the intervention among the learners in the present study?
2. Does metacognitive instruction have any impact on learners' listening performance in two listening comprehension tests?
3. What is the impact of metacognitive instruction on skilled and less skilled learners' metacognitive awareness?
We hypothesized that
1. Most of the learners have a low level of listening comprehension before the intervention.
2. The metacognitive listening instruction has a positive impact on both skilled and less skilled learners' listening performance after the intervention.
3. After instruction, both types of learners report having a prominent level of strategy use, person, and task knowledge.

METHOD

This is a mixed-methods approach using both quantitative and qualitative methodology. Quantitative data was collected through different tests and questionnaire, while qualitative data was collected through an open-ended questionnaire.

The study was conducted with a group of 20 learners enrolled on an A1 EFL General English course offered by a language center in a private Peruvian university. The pre-A1 level is divided into two courses (named Juniors 1A and Juniors 1B accordingly), as is the A1 level (named Juniors 2A and Juniors 2B accordingly). Learners in the present study had already taken the two pre-A1 level courses, and during the intervention, they were enrolled in the first A1-level course (named Juniors 2A). The students aged 11-14 were native speakers of Spanish who had been studying English for one year in the same institution.

Instruments

Three instruments were used in the study: 1) a standardized listening comprehension test aimed at A1 level (Cambridge A1 Movers) in order to measure learners' listening

performance prior and after the intervention, 2) Vandergrift et al. (2006) MALQ, which was used to measure learners' metacognitive awareness with quantitative data, and 3) an open-ended questionnaire in order to assess learner's metacognitive awareness with qualitative data.

The first instrument aimed to measure learners' listening comprehension performance at the beginning of their language course. Therefore, as students had completed two courses aimed at pre-A1 English level, the Cambridge A1 Movers Listening test was chosen as a pre and post-test. This test consists of four sections which assess learners' ability to listen for names, descriptions, and specific information of various kinds.

The second instrument was the MALQ developed by Vandergrift et al. (2006) which consisted of twenty-one items comprising five metacognitive components: problem-solving, planning and evaluation, mental translation, person knowledge and directed attention. This instrument was also piloted by the author thus making it a reliable instrument. It must be mentioned that the original questionnaire consisted of a six-point Likert scale; however, given learners' age and cognitive development, it was reduced to a four-point scale ranging from strongly disagree (1) to strongly agree (4).

The third instrument was an open-ended questionnaire aimed at measuring learners' metacognitive awareness in a qualitative way. The questions addressed the different types of metacognitive knowledge: person knowledge, task knowledge and strategy knowledge. The questions were adapted from the works of Goh and Kaur (2013), and Goh and Taib (2006) to address the different types of metacognitive knowledge.

Procedures

Data for this study were collected during the second semester of the academic year 2021. Learners were informed about the purpose of the study and their parents were requested to sign a consent form. In total, twenty students returned their signed consent forms and participated in the study.

Prior to the intervention, learners completed the listening section from the Cambridge A1 Movers Test to determine their current level of listening comprehension performance. The test consisted of four sections; each question was given one mark, which amounted to twenty marks in total. For the present study, students who scored between 70% and 100% (14-20) were considered skilled listeners, while those who scored between 0% and 65% (0-13) were considered less-skilled listeners.

After completing the pre-test, students completed the MALQ which was linked to a listening activity, as suggested by Cross and Vandergrift (2015). In this way, learners' responses could accurately reflect what they did while they were listening.

Due to the learners' low level of language competence in English, the items were translated into Spanish. This questionnaire comprised twenty-one items which measured five areas of strategy use.

A day after these activities, students had a listening experience in class, with conventional listening activities such as true-false and fill-in-the-gaps. The students were then given access to the open-ended questionnaire in which they answered questions

about their listening experience in a freer way, thus resulting in more qualitative data which could be used to determine learners' metacognitive awareness prior to the intervention. Therefore, as suggested by Cross and Vandergrift (2015), quantitative data was considered in conjunction with qualitative sources of information. Questions include: Did you find the listening tracks easy or difficult? Why? Did you feel nervous when listening to the tracks? Why do you think it is sometimes difficult to understand the listening tracks? What helped you get the answers in the listening activity?

The researcher carried out 4 sessions of metacognitive strategic instruction (30 min) before the 7 experiential listening tasks. In these 4 sessions, the researcher taught learners the metacognitive strategies for the listening tasks: *planning, monitoring, evaluation, and problem-solving.* The sessions involved two steps: defining and describing the strategy and providing learners with examples of how and when to use them.

After this, students received 7 experiential listening sessions which adopted Vandergrift and Goh's (2012) model of metacognitive instruction. The sessions consisted of 5 pedagogical stages: *planning stage, first verification stage, second verification stage, final verification stage, and reflection and goal-setting stage.*

In the planning stage, students made predictions about the audio texts they would hear and analyzed the text genre. In the first verification stage, students compared what they heard with their predictions and decided on what would require more attention. In the second verification stage, students solved problems during their comprehension process, shared what they had understood with a classmate and tried to reconstruct the information from the audio. In the third and final listening, students listened to the audio with a transcript to notice any gaps in their comprehension and develop an awareness of pronunciation and intonation features which might have affected their comprehension (Field, 2008). In the final reflection goal-setting phase, students were given a set of questions to answer individually about what they did to understand the audio and what they could do better next time. This phase also included activities such as the anxiety chart in which learners draw circles in different shapes according to how anxious they felt during the listening session.

It is also worth noting that, as previous studies suggest (Bozorgian, Yaqubi & Muhammadpour, 2020; Fakhri Alamdari & Hosnbakhshan, 2021), in some phases during the instruction such as the second listening or the goal-setting phase, learners' first language was used to facilitate learners' reconstruction of the aural text given learners' lack of vocabulary repertoire to express some of their ideas during the discussion activities.

After the 7 metacognitive instruction listening sessions, students were asked to complete a post-test: Cambridge A1 Movers Listening Test. After two weeks, learners completed another Cambridge A1 Movers Listening Test as a delayed post-test.

It should also be mentioned that the tasks included in the test were never utilized in the intervention, meaning that the listening material was independent thus making it possible to judge learners' ability to transfer their skills to different tasks (Cross & Vandergrift, 2015).

FINDINGS

Research question 1

The results of the pre-test indicate that most of the learners have an 'In process' and 'Need improvement' level of performance in the Cambridge Listening Movers Test. Listening scores ranging from 14-20 marks were considered as 'Achieved' level of listening comprehension, those from 11-13 were considered as 'In process', and from 0-10 were considered as 'Need improvement' level. This distribution follows the guidelines given by the institution where the present study took place.

Table 1
Distribution of the pre-test scores of the Cambridge Listening Movers Test

Level of listening comprehension	Participants	
	N	%
Achieved	8	40.00
In process	2	10.00
Need improvement	10	50.00
Total	20	100%

In order to reject the null hypothesis that learners have a high level of listening comprehension prior to the intervention, a Chi-Square Goodness of Fit Test was run to compare the observed sample distribution with the expected probability distribution. The distribution was significantly different X^2 (2), = 16.63, p = <.001. among the three categories.

Research question 2

The descriptive statistics were calculated for the pre- and post-listening tests for both skilled listeners and less-skilled listeners. Each test had a total of 20 points. As learners were divided into skilled listeners and less-skilled listeners and were not intended to be compared, paired samples *t*-tests were executed for each group to determine statistical differences between their own scores in the pre-test and in the post-tests. Furthermore, Cohen's d was also calculated to determine the effect size for the mean differences and the interpretation of this is based on Cohen's guidelines (1988).

The scores showed that the mean was significantly higher on the post-test for the less-skilled listeners (M = 14.00) than on the pre-test (M = 11.38). The scores in the post-test for the skilled listeners were also somehow higher (M = 16.75) than on the pre-test (M = 15.75). These results are summarized in Table 2.

Table 2
Descriptive statistics for pre and post listening test (Cambridge A1 Movers Listening Test)

Test	Group	*N*	*M*	*SD*	Min	Max
Pre-test	Skilled listeners	8	15.75	1.54	14	18
	Less skilled listeners	12	11.38	1.59	8	13
Post-test	Skilled listeners	8	16.75	1.13	15	19
	Less skilled listeners	12	14.00	1.85	10	16

Notes. Maximum possible score = 20

In order to measure the differences of means, a *t*-test was used; the results in Table 3 shows the results of the t-test for each group in the pre and post-test used in the intervention.

Table 3
Paired-samples *t*-test for both skilled listeners and less skilled listeners in the pre-test and post-test

Group	Tests	*p*-value	*t*	*df*
Less skilled listeners	Cambridge A1 Movers Listening Test before and after the instruction.	.007	6.05	11
Skilled listeners	Cambridge A1 Movers Listening Test before and after the instruction.	.076	1.53	7

The results of a delayed listening post-test were also considered to determine the influence of the instruction on learners' listening performance, and have enough evidence to make conclusions. Table 4 shows the results.

Table 4
Descriptive Statistics for the delayed post-test

Test	Group	*N*	*M*	*SD*	Min	Max
Delayed post-test	Skilled listeners	8	15.83	2.12	12	19
	Less skilled listeners	12	14.50	1.84	13	18

Notes. Maximum possible score = 20

To show statistical differences between the delayed post-test scores and the listening pre-test (Cambridge A1 Movers Test), a *t*-test was executed. Table 5 shows the results.

Table 5
Paired-samples *t*-test for both skilled listeners and less skilled listeners in the Cambridge A1 Movers Listening Test: Delayed post-test

Group	Tests	*p*-value	*t*	*df*
Skilled listeners	Pre-test and delayed post-test	.456	0.11	11
Less skilled listeners	Pre-test and delayed post-test	.003	3.46	7

Research question 3

The MALQ questionnaire comprised a four-point Likert scale, with options including from *strongly disagree (1), disagree (2), agree (3), and strongly agree (4).* This instrument was administered after the listening pre-test and once learners were divided into skilled listeners and less-skilled listeners. In this way, it was possible to determine any difference in these factors between the two groups of learners. After transferring the scores to the SPSS program, the mean was calculated for each factor to measure learners' awareness of each factor before and after the instruction. Table 6 shows learners' metacognitive knowledge prior and after the instruction.

Table 6
Questionnaire responses of learners on the MALQ before the instruction

	Before the intervention				After the intervention			
MALQ factors	Less skilled listeners		Skilled listeners		Less skilled listeners		Skilled listeners	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Planning and evaluation	2.2	0.8	3,6	0,8	3,4	1,0	3.2	0.5
Directed attention	2.5	0.5	3,1	0,5	3,8	0,8	3.0	0.2
Problem-solving	2.3	0.3	3,8	0,9	3,5	0,2	2.6	0.3
Person knowledge	3.9	1.0	2,1	0,2	1,2	0,3	3.4	0.8
Mental translation	3.3	0.2	2,1	0,3	1,2	0,2	3.1	0.3

In the open-ended questionnaire, a thematic analysis was employed to analyze data from learners' responses (Creswell, 2008). The three categories of metacognitive knowledge were used as a point of reference, then once all the responses were read, different codes were created to identify learners' responses in relation to each category of metacognitive knowledge. A summary of the categories and subcategories can be found in Table 7.

Table 7
Summary of categories and subcodes in the learners' open-ended questionnaire

Categories	Subcodes	Example of learners' answers
Person knowledge	• Confidence • Nervousness • pronunciation	'I feel nervous because I think I'll have problems with the activities' 'People in the audio pronounce words quickly which makes me feel lost at times'
Task knowledge	• Speaker's issues • Key factors in the task • Types of listening skills	'In the audio people have different accents and I tried to understand them but it's difficult for me' 'In the activities, we had to complete with specific words from the audio'
Strategic knowledge	• Concentration • Relating the words • Planning • Thinking about the context • Monitoring	'I concentrate really hard on the tasks although my little brother was distracting me in my room' 'I go about relating the words and try to understand the audio' 'Sometimes I check if what I had understood makes sense to me'

DISCUSSION

The present study investigated the impact of metacognitive instruction on learners' listening performance and metacognitive awareness. The findings revealed that the instruction had a positive impact on the listening comprehension and metacognition as shown in the different instruments used. The results also indicate that when learners become aware of the listening process and know how to plan, monitor, and evaluate their listening process, they are better prepared to cope with the listening process, improve their comprehension, and gain confidence when dealing with listening activities.

The results shown in table 1 and the Chi-Square Goodness of Fit Test show that learners in the present study did present a low level of listening comprehension. Therefore, we can reject the null hypothesis and conclude that there are statistically significant differences in the distribution of the categories of level of listening.

In relation to the second research question, the results of the t-test revealed that less-skilled listeners showed a significant improvement in their listening performance (p = .007) compared to the skilled listeners, whose results illustrated that there was no significant improvement in their listening performance means in the pre and post-test (p = .076) since the statistical test results demonstrated that the difference between means was not significantly high. However, according to Cohen (1988), the effect size for the skilled listeners was moderately large (d = 0.74) and large for the less skilled listeners (d = 1.51), thus demonstrating that the intervention had a large effect on learners' test performance.

The results of a delayed listening post-test were also considered to determine the influence of the instruction on learners' listening performance and have enough evidence to make conclusions. Thus, both groups outperformed themselves when compared to the results from the pre-listening test (Cambridge A1 Listening Movers Test). Table 5 shows that the scores in the delayed post-test were high for the skilled listeners (M = 15.83) and less-skilled listeners (M = 14.37), thus showing that the instruction had a positive impact on both types of learners' listening performance.

The results demonstrated that there was a significant difference between the means of the listening pre-test and the delayed post-test (p = .003) in the less-skilled listeners group, showing that it was less-skilled listeners who seemed to benefit the most from the instruction. Additionally, the effect size for the skilled listeners was also medium large (d = 0.4) and large for the skilled group (d = 1.53), thus showing that the intervention had a large effect on both types of learners.

These results are consistent with the findings in Maftoon and Fakhri Alamdari (2020), Mariscal and Montero (2018), Al-Shammari (2020), and Robillos and Bustos (2022) confirming that metacognitive instruction has a positive impact on learners' listening performance, and at odds with those of Cross (2009), and Rahimi and Katal (2013).

As regards the less-skilled listeners' scores, these revealed a more significant improvement than those of the skilled listeners. This could be because the less-skilled listeners exerted greater effort and were more conscientious when undertaking the different listening tasks to improve their listening performance. This confirms our first hypothesis that metacognitive instruction has a positive impact on learners' listening performance, although less skilled listeners benefited the most from the instruction.

As for the third research question, the results indicate that the less-skilled listeners used planning and evaluation and directed attention strategies less frequently than did the skilled listeners. As for problem-solving strategies, both groups reported using them less frequently. Regarding person knowledge, this factor includes three items related to learners' perception of the difficulty of their listening skills, self-efficacy, and their listening anxiety level. In this case, a high score indicates a high level of anxiety, and negative perceptions about learners' listening skills.

As mental translation is an ineffective strategy if students are to become effective listeners (Vandergrift & Goh, 2012), the higher the score, the more it is used. Thus, table 6 shows that both groups of learners used this strategy when approaching listening tasks. It might be the case that when responding to this questionnaire, learners might have thought of previous learning experiences, therefore including translation as a strategy frequently used.

To complement this data, an open-ended questionnaire was also used to scrutinize learners' metacognitive knowledge prior to the instruction.

Regarding person knowledge, both groups of learners felt that listening is difficult or somewhat difficult for them. However, when it came to whether they felt nervous, the skilled listeners tended to be less nervous when compared to the less skilled group. This

might explain why skilled listeners feel more confident when dealing with listening tasks. As for task knowledge, most of the learners in both groups acknowledged that it was their lack of vocabulary and lexical repertoire which caused some problems in their listening comprehension. For example, one learner reported: '*I don't know the meaning of some words and that makes me misunderstand the other sections of the audio*.' Furthermore, both groups of learners reported that the fast rate of the speech of the audio and the fact they were not able to recognize who was talking to whom affected their listening comprehension.

As for the use of strategies, the skilled listeners engaged in some problem-solving strategies, such as using the known words to infer other words and/or interpret the text. For example, one skilled learner reported: '*When I listened, I tried to listen to the words I knew to understand the rest of the audio*.' Some learners also reported thinking about the context of the audio to understand the general idea. In contrast, the less-skilled listeners tended to rely heavily on directed attention strategies, such as concentrating hard on the task. It should also be noted that both types of learners reported using strategies associated with exam-testing situations such as focusing their attention on the audio and reading the questions before listening. As stated by Goh and Kaur (2013), these strategies themselves are insufficient when learners listen in different contexts.

After the intervention, the results of the questionnaire showed an increase in less-skilled listeners' strategy use for planning and evaluation, directed attention, and problem-solving. These findings are consistent with Goh and Taib (2006) and Vandergrift (2003) suggesting that learners did use planning and evaluation strategies. As regards person knowledge, both groups reported a low score, indicating a decrease in listening anxiety, and a change in their beliefs about listening as a difficult skill to master.

Learners also reported a significant change after the listening instruction on the use of mental translation strategies similar to Bozorgian (2015), and Vandergrift and Tafaghodtari's (2010) studies. The findings showed that the less-skilled listeners used mental translation strategies less frequently than did the skilled listeners. As for the skilled listeners, the results also showed that there was a significant difference in strategy use for planning and evaluation, directed attention, problem-solving and person knowledge. This is in aligned with the results from Robillos and Bustos (2022) in which MALQ results showed an improvement in some factor namely: planning and evaluation, solving-problem, directed attention, mental translation, and person knowledge.

The results of the open-ended questionnaire gave more comprehensive insights into learners' metacognitive awareness. Learners' responses in the open-ended questionnaire showed that both groups perceived the listening process as less difficult than they did before the instruction. As one learner put it: '*It is somewhat easy for me as I can understand what they are talking about.*' Both groups of learners also reported feeling less apprehensive about the listening process.

Additionally, they pointed out that not understanding some words in the audio also caused them some comprehension problems. As one learner put it: '*I didn't understand some words in the audio.*' One plausible reason for this is that they may have been too

occupied with getting word-by-word information from the audio recordings. This also shows that more emphasis on perceptual activities was needed to consolidate aural word recognition and deal with pronunciation issues since learners reported problems such as understanding words which may have been caused by decoding listening skills.

As for the use of strategies, less-skilled learners reported using more strategies than they did prior to the instruction such as: writing down the keywords and relating the known words to the context of the audio. This could be because during the metacognitive instruction students were trained to take notes and make use of the words that they recognize to better understand the audio. The skilled listeners reported using a more varied range of strategies such as relating the words they hear to the context of the audio, reading questions before listening, and identifying keywords in the task.

CONCLUSION

This study investigated the impact of metacognitive instruction on learners' listening performance and metacognitive awareness in EFL low-level learners using the model adopted from Vandergrift and Goh (2012). The results indicated that the metacognitive instruction contributed significantly to the listening comprehension for both groups of learners which confirms the findings of previous studies. However, it was the less-skilled listeners who benefited the most from the instruction. The results, therefore, provide empirical support for the notion that metacognitive instruction seems to lead to an increase in listening skills, learner confidence and raise awareness of the listening process.

As this study was not designed to fit fully quantitative expectations since it did not use control and experimental groups. There was no control over external variables such as out-of-class listening practice or conversations with English speakers, which could have affected learners' performance.

The findings also demonstrated, that prior to the instruction less-skilled listeners tended to rely mainly on directed attention, and translation strategies which are related to exam-taking situations. The skilled listeners reported employing planning and evaluation, directed attention and mental translation as their most frequently used strategies. The results also showed that both groups had a high level of listening anxiety, negative self-efficacy, and beliefs about listening skills.

After the instruction, the students' metacognitive awareness was increased, thus showing that both the less-skilled listeners and the skilled listeners felt less nervous when dealing with listening tasks and that both groups used a range of strategies which had been practiced during the instruction. The less-skilled listeners benefited the most, reporting that they employed different problem-solving strategies such as using known words to understand the context and writing keywords. Both groups of learners also reported using translation less frequently than prior to the instruction and showed an attempt to use monitoring strategies, which might be difficult to use as they are carried out in real time. It is worth mentioning that to draw more conclusions regarding learners' metacognitive awareness, an open or close-ended interview is required.

The pedagogical implication of this study for teachers is that the use of the metacognitive pedagogical sequence in the classroom seems to benefit learners since they can learn different strategies which can boost their confidence in listening, particularly if they struggle with their listening comprehension skills: hence, suggesting the need for a more process-based approach of teaching listening in the EFL classroom. Furthermore, it is recommended that when applying the metacognitive sequence, activities should be varied in each lesson, especially during the pre-listening and goal-setting phase to avoid learners' lack of interest in the listening process. For instance, completing a mind map in groups and drawing an anxiety chart were activities that appealed to learners.

The emergent picture from the present study leads us to believe that when learners are actively engaged in the listening process, it can have positive effects on their listening performance and metacognition.

REFERENCES

Al-Shammari, H. G. (2020). The impact of strategy instruction on Iraqi EFL learners' listening comprehension and metacognitive strategy use. *MEXTESOL Journal*, *44*(4), 1-12.

Bozorgian, H. (2015). Less-skilled learners benefit more from metacognitive instruction to develop listening comprehension. *International Journal of Research Studies in Language Learning*, *4*(1), 3–12. https://doi.org/10.5861/ijrsll.2014.748

Bozorgian, H., Yaqubi, B., & Muhammadpour, M. (2020). Metacognitive intervention and awareness: Listeners with low working memory capacity. *International Journal of Listening. Advance online publication*. https://doi.org/10.1080/10904018.2020.1857764

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. Routledge Academic.

Creswell, J. W. (2008). *Education research, planning, conducting, and evaluating qualitative and quantitative research.* (3rd ed.), Upper Saddle River, N.J.: Perason/Merill Prentice Hall

Cross, J. (2009). Effects of listening strategy instruction on news videotext comprehension. *Language Teaching Research, 13*(2), 151–176. https://doi.org/10.1177/1362168809103446

Cross, J., & Vandergrift, L. (2015). Guidelines for designing and conducting L2 listening studies. *ELT Journal*, *69*(1), 86–89. https://doi.org/10.1093/elt/ccu035

Fakhri Alamdari, E., & Hosnbakhshan, L. (2021). The dilemma of metacognitive intervention and EFL listening: Is L1 a panacea in EFL contexts? Interdisciplinary Studies in English *Language Teaching, 1*(1), 22–40. https://doi.org/10.22080/iselt.2021.20666.1004

Fathi, J., & Hamidizadeh, R. (2019). The Contribution of Listening Strategy Instruction to Improving Second Language Listening Comprehension: A Case of Iranian EFL

Learners. *International Journal of Instruction, 12(2),* 17-32. https://doi.org/10.29333/iji.2019.1222a

Field, J. (2008). *Listening in the language classroom*. Cambridge University Press.

Flavell, J. H. (1979). Metacognition and cognitive monitoring: A new area of cognitive-developmental inquiry. *American Psychologist, 34*(10), 906–911. https://doi.org/10.1037/0003-066x.34.10.906

Goh, C. (1997). Metacognitive awareness and second language listeners. *ELT Journal, 51*(4), 361–369. https://doi.org/10.1093/elt/51.4.36

Goh, C. (2008). Metacognitive instruction for second language listening development: Theory, practice, and research implications. *RELC Journal, 39*(2), 188–213. https://doi.org/10.1177/0033688208092184

Goh, C., & Kaur, K. (2013). Insights into young learner's metacognitive awareness about listening. *The European Journal of Applied Linguistics and TEFL, 2*(1), 5–26.

Goh, C., & Taib, Y. (2006). Metacognitive instruction in listening for young learners. *ELT Journal, 60(*3), 222–232. https://doi.org/10.1093/elt/ccl002

Graham, S. (2006). Listening comprehension: The learners' perspective. *System, 34*(2), 165–182. https://doi.org/10.1016/j.system.2005.11.001

Maftoon, P., & Fakhri Alamdari, E. (2020). Exploring the effect of metacognitive strategy instruction on metacognitive awareness and listening performance through a process-based approach. *International Journal of Listening, 34*(1), 1–20. https://doi.org/10.1080/10904018.2016.1250632

Mahdavi, N., & Miri, M. (2019). Co-shaping metacognitive awareness and developing listening comprehension through process-based instruction. *International Journal of Listening, 33*(1), 53–70. https://doi.org/10.1080/10904018.2016.1260454

Montero Martínez, P. M., & Mariscal Touzard, L. I. (2018). *Effects of metacognitive instruction on listening comprehension development in EFL A2 learners of an Ecuadorian public university*. Compass Group.

Movahed, R. (2014). The effect of metacognitive strategy instruction on listening performance, metacognitive awareness and listening anxiety of beginner Iranian EFL students. *International Journal of English Linguistics, 4(*2), 88–99. https://doi.org/10.5539/ijel.v4n2p88

Nguyen, H., & Abbott, M. (2016). Promoting process-oriented listening instruction in the ESL classroom. *TESL Canada Journal, 34*(1), 72–86. https://doi.org/10.18806/tesl.v34i1.1256

Rahimi, M., & Katal, M. (2013). The impact of metacognitive instruction on EFL learners' listening comprehension and oral language proficiency. *Journal of Teaching Language Skills, 5*(2), 69–90. https://doi.org/10.22099/jtls.2013.1555

Rahimirad, M., & Shams, M. R. (2014). The effect of activating metacognitive strategies on the listening performance and metacognitive awareness of EFL students. International *Journal of Listening, 28*(3), 162–176. https://doi.org/10.1080/10904018.2014.902315

Robillos, R. J. (2019). Crossing metacognitive strategy instruction in an EFL classroom: Its impact to Thai learners' listening comprehension skill and metacognitive awareness. *Asian EFL Journal, 21*(2), 311–336.

Robillos, R. J., & Bustos, I. G. (2022). Learners' listening skill and metacognitive awareness through metacognitive strategy instruction with pedagogical cycle. *International Journal of Instruction, 15(3),* 393-412. https://doi.org/10.29333/iji.2022.15322a

Rost, M. (2011). *Teaching and researching listening* (2nd ed.). Harlow, England: Pearson Education Limited.

Tobias, S., & Everson, H. E. (2009). The importance of knowing what you know: A knowledge monitoring framework for studying metacognition in education. In D. L. Hacker, J. Dunlosky, & A. Graesser (Eds.), *Handbook of metacognition in education* (pp. 107–127). Routledge.

Vandergrift, L. (2002). It was nice to see that our predictions were right: Developing metacognition in L2 listening comprehension. *Canadian Modern Language Review, 58*(4), 555–575. https://doi.org/10.3138/cmlr.58.4.555

Vandergrift, L. (2003). Orchestrating strategy use: Toward a model of the skilled second language listener. *Language Learning, 53*(3), 463–496. https://doi.org/10.1111/1467-9922.00232

Vandergrift L., & Goh, C. (2012). *Teaching and learning second language listening: Metacognition in action*. Routledge.

Vandergrift, L., Goh, C. C., Mareschal, C. J., & Tafaghodtari, M. H. (2006). The metacognitive awareness listening questionnaire: Development and validation. *Language learning, 56*(3), 431–462. https://doi.org/10.1111/j.1467-9922.2006.00373.x

Vandergrift, L., & Tafaghodtari, M. H. (2010). Teaching L2 learners how to listen does make a difference: An empirical study. *Language Learning, 60*(2), 470–497. https://doi.org/10.1111/j.1467-9922.2009.00559.x

Zhang, L. J. (2001). Awareness in reading: EFL students' metacognitive knowledge of reading strategies in an acquisition-poor environment. *Language Awareness, 10*(4), 268–288. https://doi.org/10.1080/09658410108667039