Teachers' Viewpoint of Metacognitive Strategy Instruction in Listening during Remote Teaching in Oman: Challenges and Strategies

Surya Subrahmanyam Vellanki[*]
English Language Center, University of Technology and Applied Sciences
Nizwa, Sultanate of Oman

Saadat Mond
English Language Center, University of Technology and Applied Sciences
Nizwa, Sultanate of Oman

Zahid Kamran Khan
English Language Center, University of Technology and Applied Sciences
Nizwa, Sultanate of Oman

Lekha Gopalakrishnan Nair
English Language Center, University of Technology and Applied Sciences
Nizwa, Sultanate of Oman

Abstract. Research in second language learning has identified the absence of metacognition among learners as one of the major problems contributing to students' inability to comprehend listening texts. Moreover, the shift to remote teaching due to COVID-19 has made it more crucial for teachers and learners to adapt to new modes of teaching and learning. This accentuates the need for effective listening strategy instruction. This study conducted at a university in Oman, is unique in two ways: first, it seeks out teachers' perceptions of metacognitive strategy instruction in remote teaching; and second, the intervention in the form of explicit metacognitive strategy instruction is offered online. This paper presents the findings of the study, which focused on the following: teachers' perception of students' listening difficulties; teachers' perceptions of metacognitive strategies and their explicit instruction; the role of metacognitive strategy awareness and instruction in improving student participation and skills in listening; challenges encountered in teaching listening during remote teaching; and overcoming challenges of teaching metacognitive strategies in remote teaching. This mixed-method study collected data through questionnaires and interviews with 10

---

[*] Corresponding author: Surya Subrahmanyam Vellanki; *surya.vellanki@nct.edu.om*

faculty members and 75 students. The findings show that teachers face several challenges, such as time limitations, shortened semesters, unfamiliar coursebook contexts, and assessment practices. For strategy instruction, teachers utilized collaborative lesson planning and resources and virtual flipped classrooms, among others. We conclude that metacognitive strategy instruction can provide better scaffolding during listening instruction and recommends further exploration of students' use of metacognitive strategies in other academic contexts.

Keywords: EFL listening; listening strategies; metacognition; metacognitive strategy instruction; remote teaching

1. Introduction

Though each of the four language skills is important to acquire a second language, listening is regarded as the primary means of L2 acquisition (Rost, 2002) and remains the most frequently used skill in the classroom. According to Rubin (1994, p. 85), "Listening, quite possibly, is the most important of language skills since people spend approximately 60% of their time listening." White (2008) emphasized that learners with high proficiency in listening skills make better progress in acquiring a second language. Kurita (2012; p. 30) too emphasizes that "listening comprehension is at the heart of successful language learning".

However, teachers and students do not give as much importance to listening skills as they give to other skills. Lim (2013) mentioned in a study that teachers focus less on the development of students' listening skill compared to that of other skills. Three reasons cited by Linang (2005) for paying less attention to listening are: the assumption that listening skill can be developed automatically; teachers' lack of awareness of how to teach listening strategies; and the lack of emphasis on teaching listening skills in the curriculum. It has been empirically observed by researchers that learners too, in general, rarely use the opportunities to ask questions and negotiate meaning during lectures despite substantial inputs from teachers. Vandergrift and Goh (2012) believe that, despite being the most important and active skill in communication, listening tends to receive the least importance from both teachers and students, and remains the most under-researched skill as well.

In language learning, according to Krashen & Terrel (1983), there has to be comprehension before language production can take place and "the starting point in language instruction is to help acquirers understand what is being said to them" (ibid, p. 20). Understanding, on the part of the listener, depends on vocabulary knowledge, grammatical structures, stress and intonation, and other linguistic, non-linguistic, and paralinguistic clues of contextual utterances (Rost, 2002).

Goh (2000) considers listening problems as the external and internal characteristics that might interrupt understanding at various stages of listening comprehension. Buck (2001) takes into account unknown vocabulary, unfamiliar topics, speed of speaking and multiple accents as contributing to listening difficulties. Out of these factors, some are beyond listeners' control, such as the

rate of speech of the speaker, the accent of the speaker, phonological variations, processing of speech in real time, and the cultural context (Chen, 2005; Chang & Read, 2007; Renandya & Farrell, 2011). Learners' listening comprehension can also be affected by learner characteristics, such as their limited contextual knowledge (Chiang & Dunkel, 1992), language proficiency (Murphy, 1985, 1986; O'Malley, Chamot, and Kupper, 1989) and memory, i.e., their ability to recall information (Call, 1985; Greenberg & Roscoe, 1987).

In addition to these issues, much of listening practice places emphasis on testing listening, not on teaching it (Brown 2011). The current teaching practices of listening skills are exam oriented, as most teachers focus more on how to make students pass exams rather than on how to listen and develop metacognitive strategies. Learners are usually exposed to traditional classroom listening tests such as answering multiple choice questions, filling the blanks, or writing words they hear in conversational exchanges (Graham, 2017). Consequently, teachers and learners are able to attain their immediate and short-term goals, but the ultimate goal of making learners better listeners is pushed out of focus.

The absence of metacognitive strategy used by learners has been identified as one of the main problems related to their inability to comprehend listening texts. Listening skills are cognitively demanding and are required to be taught explicitly, with the focus on how to listen (Schmidt, 2016). Nguyen and Abbott (2016) point out that educators often test comprehension without teaching students *how* to listen, accentuating the need for effective listening strategy instruction. This may be attributed to the fact that listening strategies employed by L2 listeners are misunderstood by a majority of teachers (Harding, Anderson, & Brunfaut, 2015; Vandergrift, 2007), making it a challenge for L2 teachers to teach L2 listening effectively (Field 2008, Nation & Newton, 2009; Siegel, 2014; Siegel & Siegel, 2015). Teachers should know how listeners deduce answers, especially incorrect answers (Field, 2003), as this knowledge helps teachers diagnose the problems of learners and develop more efficient strategies to compensate for gaps in learners' understanding (Vandergrift, 2004). Vandergrift (2003) believes that planned and well-designed listening activities inherently instruct learners in developing metacognitive strategies. Goh (2008) emphasizes the role of teachers in making students aware of the use of metacognitive strategies to develop the ability to analyze, critique, and evaluate processes in listening. Teachers can model their lessons to help learners develop these strategies by using different technologies and authentic materials (De Souza et al., 2021), which will go a long way in developing listening skills.

Flavell (1979, p. 906) coined the term metacognition and defined it as "knowledge and cognition about cognitive phenomena". Hence, metacognition is a combination of metacognitive knowledge (awareness of one's own learning process) and metacognitive strategy use (how strategies can be applied in learning). Wenden (1991) applied the term to language learning. Metacognition, according to him, means "thinking about thinking" and includes knowledge about oneself and regulating one's cognition. Research in L2 listening has, over a period, recognized facilitative strategies that help clarify listeners' mental processes (Thompson & Rubin, 1996; Vandergrift,

1999). Oxford (1990, p. 8) defines language strategies as "actions taken by learners to make learning easier, faster, more enjoyable, more self-directed and more transferable to new situations". Metacognitive strategies are used by learners to plan, monitor, and evaluate their learning processes (Oxford, 1990; Wenden, 1998). Chamot (2004, p. 14) claims strategies to be "the conscious thoughts and actions that learners take in order to achieve a learning goal".

Vandergrift (1997) created a taxonomy of metacognitive strategies (which include planning, monitoring, problem-solving, and evaluation) specific to listening comprehension. Similarly, Chamot's (1999, 2005) model of metacognitive strategies includes the same strategies. The strategies proposed by both of them are helpful in organizing strategy instruction. Metacognitive strategies are strategies learners use to approach a task, check on their progress and evaluate their performance. Basically, it is about linking new information to current knowledge, choosing thinking strategies appropriately and consciously planning, monitoring, and evaluating our thinking processes (Dirkes, 1985).

Many studies have evaluated the effectiveness of metacognitive strategy instruction (MSI) on developing listening skills and listening comprehension. MSI refers to pedagogical practices that facilitate improvement of listening process and metacognitive strategy awareness among learners, while simultaneously enabling "learners to know how to plan, monitor, and evaluate their comprehension efforts and the progress of their overall listening development" (Vandergrift & Goh 2012, p. 97). There seems to be general agreement among ELT practitioners that listening comprehension can be enhanced through proper instruction of metacognitive strategies. Brown (2007) favored strategies-based instruction which focused on equipping students with skills so that they could make the most using successful learning principles. The existing literature indicates that successful learners have a greater ability to effectively employ metacognitive learning strategies than less-successful learners, and less-skilled listeners benefit most from MSI and show great progress in their performance (Rubin, 1987; O'Malley & Chamot, 1990; Oxford, 2003; Vandergrift, 2006, 2007; Vandergrift & Tafaghodtari, 2010; Goh & Taib, 2006; Liu, 2008; Goh, 2000, 2008; Lai, 2009; Kurita, 2012; Yesilyurt, 2013; Fahim & Fakhri Alamdari, 2014; Lee & Cha, 2020). Learners, according to O'Malley et al. (1985a), who are not equipped with metacognitive approaches do not have a direction and they fail to trace their development, accomplishment, and progress.

Learners, according to Goh (2008) and Siegel (2015), can reap major benefits from MSI, which include more motivation and less anxiety and enhancement in listening performance. Moreover, it can result in broader benefits for weaker learners. The results of a study conducted by Movahed (2014) on the effect of MSI on listening performance, metacognitive awareness and listening anxiety revealed that anxiety levels of the students reduced substantially, and the experimental group outclassed the control group on the post-test. Similarly, a further study by Wang and MacIntyre (2021, p. 509) on the role of anxiety and enjoyment in listening metacognitive awareness showed that "use of listening

strategies was positively correlated with both listening anxiety and enjoyment" and, hence, effective teaching of strategies could reduce listening anxiety for listeners. A different study conducted by Rivera (2018) on the correlation between listening strategy instruction and listening motivation indicated that motivation levels in both groups decreased over the treatment period. However, a smaller decrease in motivation levels was noticed in the experiment group when compared to the control group.

Vandergrift (1999) noted that the use of metacognitive strategies leads to better listening achievement. He points out that less efficient learners utilized cognitive and memory strategies more frequently, and social strategies less frequently, while the more efficient learners often applied metacognitive strategies to enhance their listening skills. Vandergrift (2010) and Cross (2011) have observed that self-analysis, reflection and goal setting can increase metacognitive knowledge. Goh and Taib (2006) noticed that metacognitive instruction allows the teacher to elicit and promote learners' knowledge about themselves as L2 listeners.

Some other studies dedicated to MSI in listening English learners indicated that MSI improved students' awareness of metacognitive strategies and their use (Lotfi, Maftoon & Birjandi, 2012; Rahimirad & Shams, 2014; Bozorgian, 2014; Mahdavi & Miri, 2016; Bozorgian & Alamdari, 2017). Explicit MSI in listening is also found to have a positive effect on learners' listening comprehension and their metacognitive strategy awareness and use (Khonmari & Ahmadi, 2015; Farhadi, Zoghi & Talbei, 2015; Al-Shammari, 2020). The results of these studies found a considerable difference between the means of the pre- and post-tests in the control groups.

MSI helps learners become autonomous learners and improve their listening performance (Kobayashi, 2018; Krishnan et al. 2021). Taguchi (2017), Bermillo and Aradilla (2022) found significant differences in the performance of learners who had been given MSI in improving their listening comprehension. It was found in these studies that MSI exposure helped the treatments group in improving their average scores.

It was the transition to communicative language teaching (CLT) in the 1980s and 1990s that signaled a shift away from teacher-centered pedagogies to student-centered ones and placed emphasis on teaching strategies in L2 teaching (Goh, 2008). In order to achieve the goal of making students autonomous learners, strategy-based instruction was believed to be extremely crucial for enhanced learning. Cohen and Weaver (1998) emphasized the necessity of providing explicit strategy instruction to develop students' metacognitive abilities to monitor and evaluate their strategy use through class discussions and reflective exercises. This approach brought into sharp focus the metacognitive strategies that students were actually using without realizing that they were doing so. Therefore, it became essential for students to know the terminology, notice how, where and why a particular strategy was being applied either by teachers or high-proficiency learners, and later deploy it accordingly. With reference to

Omani learners, Al-Toubi (1998, as cited in Al Issa, 2006), believes that English is not taught as a language for communication in Oman. They argue that classroom materials and classroom activities are controlled and do not resemble actual language use, and the Omani English language teaching curriculum fails to prepare students for accurate, effective, and appropriate oral communication in English. In the same vein, Al-Issa (2005b) found that the current national syllabus lacks a variety of authentic practice activities and materials and focuses heavily on foreign cultures and environments.

Omani students' unsatisfactory performance in listening can be attributed to the fact that listening skills in Oman are relegated to a secondary level although the marks scored in listening tests constitute a considerable weightage in the overall assessment of students. Higgins' (1995) notes that speech rate, vocabulary, and pronunciation are problems in listening comprehension. Similarly, a study by Hasan (2000) on Arab learners of English points out that grammar structures, unfamiliar vocabulary, lack of interest, nature of answers in listening comprehension and the length of the spoken text are essential factors affecting listening comprehension. Further, the differences in L1 and L2 grammar structures, the absence of specific English phonemes in Arabic and vice versa, and less familiar cultural contexts make the situation in Oman even more complex and demanding for learners. A study by Al Jahwari et al., (2019) examined the effect of MSI in listening comprehension on Grade 11 EFL learners and showed that MSI intervention improved students' listening and metacognitive awareness significantly.

The impetus for the present study stemmed from the fact that students face many challenges in listening comprehension resulting in low scores. Moreover, the remote teaching (RT) context has added considerably to students' difficulties. The researchers of this study believe that if metacognitive strategies are taught explicitly and are practiced by students appropriately, they are most likely to perform better and improve their listening comprehension skills. Despite the number of studies cited above, it is notable that little research has been done in the Omani context, as well as in other academic contexts around the world, with the focus specifically on students' use of metacognitive strategies and the differences in the use of the strategies at different levels of achievement in listening, especially in remote teaching/learning. Hence, we believe that it is important to determine whether metacognitive strategy awareness can play a role in students' improved listening comprehension.

2. Research Questions
We look at the impact of metacognitive listening strategy instruction on students enrolled in the General Foundation Program (GFP) at a university in Oman. The following research questions were addressed:
1) What are teachers' perceptions of difficulties that students face in listening skills?
2) What are teachers' perceptions and beliefs about metacognitive strategies and their explicit instruction?
3) What are the teachers' perceptions of the role of MSI in improving students' listening skills during RT?

4) What are the teachers' perspectives on the impact of MSI intervention during RT?

5) What challenges did teachers face during the metacognitive strategy instruction (MSI) in RT?

6) How can teachers overcome the challenges of teaching metacognitive strategies in RT?

3. Methodology

3.1 Research Design

This study has chosen qualitative and quantitative approaches to investigate the outcomes of MSI on GFP students' listening comprehension. A concurrent triangulation mixed-method approach is used as it enhances the validity of the research by combining the advantages of both quantitative and qualitative data, provides us with the opportunities to triangulate both forms of data collected from different sources, and minimizes the limitations of both approaches. This approach also brings into light multiple perspectives since both forms of data exist in a supportive role (Creswell & Plano Clark, 2011; Creswell, 2012; Creswell & Creswell, 2018).

3.2 Setting and Participants

Seventy five students (39 females and 36 males), aged between 18 and 20, selected from four groups of the GFP, participated in this study. Two were experimental groups to which MSI was given; the other two were controlled and not part of the intervention. The participants were chosen from level 4 (advanced) as this level determines which course students would study in their majors. All students were native Arabic speakers with a similar background in primary and secondary education and had studied English at school for almost 12 years as a compulsory course before joining the GFP, which is a four-semester preparatory program to develop students' English language skills for further studies in their chosen specializations.

Teacher participants in this study were 10 faculty members of the university who had taught level 4. These teachers are master's and doctoral degree holders with experience ranging from four to over twenty years in Oman.

3.3 Data Collection

3.3.1 Instruments

As listening comprehension and metacognition are internal processes that are not apparently noticeable, we used various data sources for data triangulation. A questionnaire designed by Lotfi (2012) was used to find out the difficulties students' encountered in listening. The questionnaire was originally developed to explore listening comprehension problems among Iranian EFL learners. The questionnaire consists of six different factors: process, input, listening, task, affect and context. The Cronbach's alpha coefficient was used to measure the reliability of the questionnaire. It was 0.895, which demonstrates a satisfactory internal consistency. The same questionnaire was modified and rephrased to make it suitable to find out teachers' perceptions of students' listening difficulties. Metacognitive Awareness Listening Questionnaire (MALQ, Vandergrift et al.,

2006) was used to assess the foreign language learners' metacognitive awareness and perceived use of strategies in listening comprehension. It measured strategies such as problem-solving, planning and evaluation, translation, personal knowledge, and directed attention. It was administered twice (before and after the intervention) in students' native language to ensure they understood what they read and responded correctly.

A questionnaire for teachers was developed by the researchers to explore the challenges in metacognitive strategy instruction, learning, and assessment during RT. It sought the challenges teachers faced in teaching listening during RT, teachers' perceptions of teaching metacognitive strategies during RT, and their perceptions of MSI. It was validated by five language experts who are faculty members of different universities. Its reliability was established through a pilot test.

The qualitative data were collected using semi-structured interviews with teachers as they encourage two-way communication by letting the respondents open up about critical issues. Purposive sampling technique is used to involve the individuals who are experienced and have knowledge in the field of enquiry (Creswell & Plano Clark, 2011). The goal was to choose individuals who were willing to participate, who could communicate and reflect on their experiences effectively. An interview guide was developed with a set of probing questions and was validated by two language experts for its open-endedness, appropriateness, simplicity, and clarity. The teacher-participants were informed of the time needed (approximately 30 minutes) to complete the interviews. In addition, discussions in every listening class and in the final class, in which the researchers summed up the whole intervention process, served as informal interviews with students. The consent of both teacher and student participants was taken during different phases of data collection and they were assured about the anonymity and confidentiality of qualitative and quantitative data.

The primary concern in the whole process of data collection was to understand the students' use of metacognitive strategies, whether there was any progress in the way they used the strategies and, most importantly, whether they noticed their own learning over time. As a result of the strategy instruction intervention, students' notes, predictions, comments, reflections, and opinions given in the MS Teams' chatbox, Padlet, etc. emerged as another data source that gave us insights related to students' application of different metacognitive strategies during the listening tasks.

In this study, institution adapted IELTS listening tests, comprising three sections and a total of 25 questions, were used. These tests had a variety of question types including multiple choice, sentence completion, true/false, etc. They were assessed using the institution adapted IELTS listening criteria. In between the pretest and post-test, an intervention in the form of MSI was introduced to the experimental groups.

3.3.2   Procedures

3.3.2.1 Intervention – Metacognitive Strategy Instruction (MSI)

The intervention involved two groups of students. For this intervention, the task sequence suggested by Vandergrift (2004, p.11) to teach listening skills was used. Students were guided through different pedagogical stages to understand how to listen, as this "metacognitive, process-based approach" appears to represent real-life listening (Goh, 2002b; Vandergrift, 2003a; Vandergrift & Tafaghodtari, 2010, p. 470). Different stages of this task sequence and the underlying metacognitive strategies in each step are shown in Table 1.

Table 1: Listening Instruction Stages and Related Metacognitive Strategies

Stages of Listening Instruction	Related Metacognitive Strategies
Planning/predicting stage 1. Once students know topic and text type, they predict types of information and possible words they may hear.	1. Planning and directed attention
First verification stage 2. Students verify initial hypotheses, correct as required, and note additional information understood. 3. Students compare what they have written with peers, modify as required, establish what needs resolution and decide on details that still need special attention.	2. Monitoring 3. Monitoring, planning, and selective attention
Second verification stage 4. Students verify points of disagreement, make corrections, and write down additional details understood. 5. Class discussion in which all contribute to reconstruction of the text's main points and most pertinent details, interspersed with reflections on how students arrived at the meaning of certain words or parts of the text.	4. Monitoring and problem solving 5. Monitoring and evaluation
Final verification stage 6. Students listen for information that they could not decipher earlier in the class discussion.	6. Selective attention and monitoring
Reflection stage 7. Based on discussion of strategies used to compensate for what was not understood, students write goals for next listening activity.	7. Evaluation

As students listen to different recordings of English texts, they employ a series of metacognitive strategies implicitly, and the teacher guides them explicitly, whenever necessary, to use them. At the end of the tasks (during the reflection stages), students reflect on the strategies used at different points during the task and evaluate their own use of these strategies.

The pedagogical cycle was implemented in an EFL context, which is similar to what many researchers have done earlier, including Vandergrift and Tafaghodtari (2010) and Goh & Taib (2006). In the present study, too, all learners shared the same language and culture; however, the difference lies in the way the intervention was introduced, i.e., through RT. Based on the class schedules, a 90-minute session per week was offered for ten weeks. Sometimes, we felt it was necessary to modify the different stages of the pedagogical sequence in view of time constraints, requirements of the course delivery plan, and the needs of the students.

3.3.2.2 Classroom Procedures during the Intervention
The prescribed coursebook is *Pathways 3: Listening, Speaking and Critical Thinking* (2012). We prepared the lessons based on the topics suggested for the semester and included different strategies in their lesson plans to accommodate the listening and discussion part of the topics in the live sessions and assigned the other activities for completion asynchronously. For example, the vocabulary activities given at the beginning of each lesson were assigned to students prior to the session using online platforms such as H5P, Moodle, or Bookwidgets. This deliberate move saved class time and allowed researchers to reinforce the vocabulary in live sessions through listening activity and class discussions.

In the first lesson, students were given a detailed description of metacognitive strategies and their use. Next, the structure of the lessons, the objective of each listening task and the relevant metacognitive strategies, and how these strategies could help achieve the desired objectives were explained. The explicit instruction of appropriate metacognitive strategies was incorporated at different stages of listening.

The teachers guided students through each stage of the listening sequence and asked them to make a note of predictions to be discussed after listening to the text. The teacher modeled the think-aloud technique so that students would notice how questions could be asked based on the information given and how they could use that information to form predictions.

Students' opinions/comments were gathered by using MS Teams' chatbox, Padlet, etc. These responses were about their understanding and use of strategies at different stages of listening and came in the form of written notes in the MS Teams' chatbox or oral comments during the sessions. It gave the researchers an opportunity to look at what students predicted about the lesson, and it also gave students a chance to verify their understanding at later stages of listening.

In the next stage, students were asked to take notes on important information while listening to the audio. They were asked to review and reflect on the information they had understood and the information that was still unclear to them.

In the second listening, students were asked to distinguish between what they should add to the existing information and what they needed to clarify in the listening. During the last verification stage, students came up with things that were hard to understand and tried to concentrate more on the text selectively.

In class discussions following each lesson, students were asked to reflect on which strategies they used, which ones were effective, what the areas of difficulty were, and how they would address such difficulties in their following listening lessons. The researchers analyzed all these comments and reflections to summarize and outline the strategies used at different stages of the listening tasks. The students who did not do well were reinstructed before the subsequent lessons to enhance their performance.

3.4 Data Analysis Methods
The qualitative data was analyzed using the thematic analysis approach proposed by Braun and Clark (2006). We familiarized ourselves with the data, examined the transcribed data, coded it, searched for themes using keywords and phrases, and reviewed them to write the details (Creswell & Creswell, 2018). The quantitative data were analyzed using Microsoft Excel.

4. Results and Discussion
This section addresses the research questions based on the data from the questionnaires, interviews, and the results of the intervention.

4.1 Teachers' Perception of Students' Listening Difficulties
The analysis of the questionnaire on teachers' responses to students' listening difficulties revealed that the most significant areas of difficulty for students in listening are unfamiliar topics, vocabulary (idiomatic and slang expressions), accent, and pronunciation (94%). This may be due to differences in cultural contexts and students' lack of exposure to idiomatic and slang expressions in English. This coincides with the findings of Buck (2001), Chang and Read (2007), Higgins (1995) and Hassan (2000). A similar percentage of teachers identified the rate of speech as another area of difficulty in listening (94%).

The areas that rank second in the list of listening difficulties for students are understanding issues related to lengthy texts, context, literally focusing on every word to understand, complex grammatical structures, problems with connected speech, inferencing and deduction (88%). The reasons for these difficulties stem from the fact that many students, as the analysis of the teachers' interviews showed, do not use appropriate strategies during listening practices. Moreover, the exam pattern constitutes mostly direct questions where students do not have to analyze and process large chunks of information at deeper levels. Another contributing factor to students' difficulties is the differences in grammatical structures of L1 and L2. Moreover, absence of certain phonemes in English or Arabic poses great difficulty for students in comprehending a listening text. Students also lack exposure to different varieties of authentic English language. These findings correspond to the outcomes of Chen (2005), Chang and Read, (2007) and Renandya and Farell (2011).

The areas that rank third in the list of listening difficulties for students mentioned by 82% of teachers are cultural and contextual differences in listening texts and unfamiliar stress and intonation. Teachers reported that students had problems with lengthy listening texts since they lost focus and were uncertain about their comprehension. Understanding the gist or predicting the missing information

based on context came up as other challenges in listening. External factors such as unclear sounds from an audio, external noise, and classroom acoustic conditions also rank third in the list of difficulties.

Seventy-six percent of teachers reported that guessing meanings from context is another challenge that students face in listening. The analysis of the interviews also supported the teachers' claim that, due to unfamiliar vocabulary, students neglect the next part of the text and lose track of it, as they focus more on grappling with the meanings of unfamiliar words. Multitasking emerges as another significant area of difficulty perceived by 71% of teachers, as processing of listening involves listening to the audio, reading questions, and answering them.

Students, as reported by 65% of teachers, get flustered by large chunks of listening text. They lose focus and find it difficult to relate different parts of the text (e.g., combining details with the main idea, or not being able to recognize discourse markers during listening), which affects their comprehension. Sixty-five per cent of teachers viewed sentence completion as being the most difficult task type for students. The same percentage of teachers also believes that inability to use appropriate strategies, especially metacognitive, adds to the challenge of comprehending a listening text, often resulting in student demotivation.

Fifty-five percent of teachers believed that students show no or little interest in topics that don't enthuse them. The least challenging task types, according to teachers (12-50%), are answering matching questions, MCQs, fill-in-the-blanks, wh-questions, short answer questions, and completion of forms/tables/notes. The reason for this may be, as mentioned by teachers in the interviews, that the exam pattern followed right from schools contains questions which do not pose a significant challenge to students' intellect. For example, in most listening exams, students are asked very simple questions such as listening for a phone number, someone's name, title of a book or the publication year, etc. On the other hand, the most challenging kind of question for students, as mentioned by teachers, is summary completion where students must process, paraphrase, and summarize a lengthy listening text.

During the interviews, teachers pointed out that because of the lack of MSI and critical thinking, most students do not use listening strategies which would have enabled them to become autonomous learners. This autonomy becomes extremely crucial in the RT context. Coupled with the challenges mentioned above, low levels of student proficiency in general also contributes to problems in listening.

Overall, there was a general agreement among teachers that the unsatisfactory performance of students could be attributed to their inability to use strategies, especially metacognitive ones.

4.2 Teachers' Perception of Metacognitive Strategies
According to the responses of teachers in the questionnaire, it is clear that strategy instruction, in general, is believed to be a part of teachers' teaching practice in

listening classes (82%). However, teaching metacognitive strategies by teachers falls significantly short (65%). The difference, as the interviews highlight, can be attributed to the fact that teachers probably focus more on cognitive strategies such as inferencing, translation, prediction, summarization, and elaboration. Teachers believe that teaching these strategies might facilitate answering certain task-types that usually appear in listening assessment. The questionnaire data from students also validates their greater dependence on cognitive rather than metacognitive strategies, which suffices them to answer different question types given in listening tests. Students' low proficiency level, lack of exposure to English outside the classroom, and lack of training in using metacognitive strategies make it difficult for them to go beyond cognitive strategies.

The questionnaire data of teachers reveals that 65% of teachers believe that students can have control of their own learning using metacognitive strategies. However, the data also reveals that socio-affective and cognitive strategies are considered more effective by 18% and 12% of teachers respectively in improving students' autonomy in learning. Furthermore, 65% of teachers are aware of metacognitive strategies, such as planning, monitoring, evaluation and problem identification, and their importance in listening classes. The same percentage of teachers devotes some part of their class time to guide students develop metacognitive strategies.

In spite of teachers' perception that MSI is necessary for students to improve their listening skills, the data obtained from a question on the most challenging skill to teach remotely was interestingly contradictory. Listening emerged as the least challenging skill to teach (with just around 8% of teachers choosing it), while writing was seen as the most challenging skill to teach, with around 65% of teachers selecting it. This data conforms to the findings of earlier research (Abdalhamid, 2012; Gilakjani & Sabouri, 2016; Yıldırım & Yıldırım, 2016) that suggests that listening has been given the least preference by EFL/ESL teachers and learners. Moreover, the situation seems to have worsened in the present RT context. Accordingly, listening has been perceived to be the least challenging by many teachers since there has been less focus on teaching listening compared to other skills in RT. It is taken for granted by the teachers that students can manage listening skill development on their own. They can practice the exercises given on various learning management platforms on their own, and this practice is believed to be enough for developing listening skills and strategies. The practice of creating less challenging listening tests on various learning platforms with a focus on either MCQs, fill-in-the-blanks, or direct short answers (such as finding out a name or a year, etc. which does not test students' critical thinking) is yet another contributing factor to the perception that teaching listening skills is less challenging. Moreover, the marking of listening tests on most learning platforms is automatic, strengthening the perception that teaching listening is the least challenging.

4.3 Teachers' Perception of MSI during RT
Qualitative data suggests that most teachers believe that metacognitive strategy instruction during remote teaching will be helpful for students because:

- these strategies are likely to develop independent learning and students can manage their own learning better.
- they lead students to evaluate and correct themselves.
- they help students deal better with uncertain and previously un-encountered situations.
- they promote a positive attitude towards listening and learning and develop higher-order thinking skills and a deeper understanding of topics.
- not knowing or using these strategies is a reason for their lack of motivation and unsatisfactory performance, and students need guidance in cultivating and applying these strategies effectively.

There is no gainsaying the fact that MSI contributes to improved performance in listening skills and makes students autonomous learners. Its significance increases manifold in the current RT context because it is imperative that students rely more on themselves to deal with some shortcomings inherent in RT, such as lesser real-time interaction with teachers and peers. Moreover, these strategies help them not only in their listening but also in other courses, skills, and real-life situations. They help fulfill the curriculum's aims and objectives (e.g., inculcating a sense of responsibility among students by using multiple available resources inside and outside the classroom) and make students self-reliant and self-motivated, which is essential for success, especially in online learning.

In response to whether it is easier to teach metacognitive strategies in the current RT situation compared to a face-to-face teaching context, 54% of teachers responded in the negative and said that:
- it is "difficult to monitor whether students are using metacognitive strategies in an RT situation".
- the "degree of effectiveness is slightly lower in an RT context".
- strategy instruction may not yield better results owing to the "lackluster approach of students in remote learning".
- less student-teacher interaction, lack of time management skills, and lack of intrinsic motivation are other factors that might reduce the efficacy of strategy instruction.
- strategy instruction and tracking the progress of learners is difficult in RT because of constraints of time, technology, and syllabus.
- "RT is not an ideal medium" to teach metacognitive strategies as there is an amount of uncertainty in many aspects of RT (such as lack of students' physical presence, and lesser interaction), which might impede the effective teaching and development of metacognitive strategies.

Contrary to the opinions given earlier, some teachers (19%) believe that the current RT situation is more conducive for teaching and practicing metacognitive strategies because:
- students have plenty of technological resources available for online learning, and by using those resources, they can understand the strategies and their applications better.

- • the extra time that students have at their disposal is likely to motivate them for independent learning and self-improvement.
- • RT provides teachers the opportunities to adapt new methodologies and strategies supportive of the teaching of metacognitive strategies.

However, 27% of teachers preferred to remain neutral to the modality of teaching (whether RT or face-to-face) and offered the following reasons.

- • Teachers' methodology matters most in MSI rather than the mode of teaching.
- • Irrespective of the mode of teaching, making students aware of metacognitive strategies and making them practice these strategies is fundamental.
- • A key factor in any teaching context is students' motivation. Motivated students always use the available resources and opportunities to the best of their limits.

Integrating MSI in materials and curriculum is needed regardless of whether it is remote teaching or face-to-face context.

4.4 Impact of the Intervention – MSI

Pre- and post-intervention tests and the MALQ administered before and after the intervention revealed significant changes in the self-reported metacognitive strategy use among all participants. Class discussions after the lessons and the informal interview with students also gave an opportunity for the researchers to delve further into students' understanding of metacognitive strategies and their use.

A significant difference was visible in the listening test scores of pre- and post-intervention of MSI. The average students' scores improved from 14.7 to 16.8 out of 25. During the intervention, it was observed that a majority of students resorted to using different metacognitive strategies such as planning, monitoring, and evaluation to complete their tasks. It was also noticed during class discussions, especially in the second half of the intervention, that most students understood the terminology of metacognitive strategies and why and when those strategies were to be used. They were able to recall which strategy they had used in similar situations in previous lessons. Certainly, high-proficiency learners were able to use these strategies better, and they were also able to explain why and when they had used a particular strategy. For example, they began identifying problems in their understanding during the listening task. They also developed the habit of verifying and evaluating their predictions and monitoring what was going on in their minds while understanding the listening texts. They reported that their approach to solving different listening tasks had changed. Some students said that they had stopped worrying about understanding every word and that certain answers could be guessed intelligently from contextual clues.

It was noticeable in the latter part of the intervention that most students felt comfortable to ask questions and discussing strategies that could be used in their listening tests. The researchers' empirical observations revealed that students who had higher language proficiency used a variety of metacognitive strategies, while

those with lower proficiency used fewer. This was also why some students could not perform better in listening despite being physically present in the online sessions. The same was reported in the MALQ and in class discussions too. A significant difference was visible in the listening test scores of pre- and post-intervention of MSI. As the groups comprised mixed-ability students, the researchers discovered that students used a range of metacognitive strategies depending on their language proficiency and understanding of the strategies. Students with low proficiency found it challenging to describe or explain their learning processes though they might have used metacognitive strategies. It was also noticed by the researchers that the students who did the exercises on web-based platforms, such as Moodle and H5P, prior to lessons responded well during the listening tasks.

A careful analysis of student responses during classroom discussions revealed that specific strategies such as predictions, note-taking, comments in the chat box, etc., were perceivable and indicated improvement. However, strategies such as evaluation and monitoring, selective attention, and mental translation were not directly observable but were reported by students. Students' responses during post-listening sessions indicated their understanding of metacognitive strategies and their overall progress in using them wherever necessary. Some students said that they would employ more strategies to approach the same listening task if they were given a second chance.

Frequent discussions on students' listening difficulties and reiteration of different metacognitive strategies that could help them become better listeners might also have motivated them to use more strategies. With the exception of a small number of students who may not have found any benefit from MSI for various reasons, most students conveyed the impression through their participation that they were making progress with each listening lesson.

4.5 Challenges Faced in MSI and Suggestions to Overcome
Reflecting on the process of implementing metacognitive strategy instruction during remote teaching, we noted the following challenges:

4.5.1   Lack of physical presence of students
The first challenge was the lack of physical presence of students, which made it hard to notice their body language. Teachers were unable to observe them as they carried out whole listening tasks. Teachers in face-to-face classes can notice many things without the knowledge of the student, such as the focus levels of students or their reactions to listening texts. Though some of the student participants responded in the chatbox and on Padlet during listening tasks, it was difficult for the researchers to know if all students had made a note of keywords/important points during the listening.

This challenge can be addressed by providing students with a checklist of facilitative questions using language items from MALQ after each listening task to express their thought processes related to metacognitive strategy use. It might provide clear-cut data related to their metacognitive awareness and strategy use.

It was also tedious for teachers to ask every student to send their notes for every listening task and to check them to provide feedback. So, rather than asking for

individual responses separately, students could be asked to post all their responses on platforms such as Padlet.

Similarly, as mentioned earlier, the think-aloud technique was used by teachers to make students understand how a given piece of information could be processed when going through each sequence in the pedagogical cycle. However, it was difficult to determine in RT whether any student tried to do the same. In such cases, students may be asked to record their think-aloud process and upload on LMSs or using any other web-based tools such as Vocaroo, though it is questionable as to how many students would be willing to do that!

4.5.2   Attitude of students towards strategy use
The second issue was the attitude of students towards strategy use. This was due to the test pattern. Most of the questions in the listening tests conducted by the university in our teaching context seek direct answers from students. In fact, remote teaching has made teachers adapt test questions to suit the testing platforms, thereby reducing the rigor required to challenge students' critical thinking. This is one of the reasons for the lack of participation by some students who probably looked at immediate goals as far as listening is concerned. As discussed earlier, the less-challenging nature of the questions asked in listening tests was a demotivating factor, especially for students with a lower degree of proficiency. They did not show much interest in improving their listening skills through strategy use because they believed they could find ways to answer questions without resorting to metacognitive strategies.

To address this challenge, teachers should prepare appropriately challenging tests so there is less possibility of direct answers.

In RT, as noted by many participating teachers and researchers, some students were reluctant to participate and avoided giving their verbal or written input hiding behind ostensible excuses of technology (for example, bad network or equipment failure). In such cases, improving or updating technical infrastructure by all stakeholders might solve the problem.

4.5.3   Difficult or Uninteresting Topics
Another challenge was that most students, during the discussions, mentioned that the topics were either difficult or uninteresting. In other words, the listening content was cognitively challenging for students. This might be because of a cultural disconnect with the texts in the prescribed syllabus for listening skills. This also conforms to the views of teachers as reported during the interviews. In this situation, materials that are based on familiar cultural contexts might solve the problem to an extent and encourage better and more participation from less proficient learners during reflections.

4.5.4   Time factor
Time allocation, i.e., the time provided to listening skills in RT (in the context of this research) was another issue. The time given was not adequate compared to the time given to other skills. Initially, it took students time to understand the metacognitive processes and the think-aloud technique demonstrated by the researchers. The time duration also varied in individual stages depending on the

complexity and unfamiliarity of the topic and listening text. We sometimes did not get enough time for follow-up tasks such as short speaking or writing activities to reinforce their understanding of the topic and vocabulary.

In contrast to Voth (n.d.), who cut short her whole class discussion to cater more time for prediction, adjustment, and reflection, the researchers, this being an RT context, had to allocate more time for post-listening class discussions to understand more about students' internal processes of using metacognitive strategies. The time spent proved to be worthwhile for motivated learners.

Sometimes, time constraints also did not allow the researchers to carry out all the stages of the pedagogical cycle in one lesson as proposed and followed by Vandergrift (2004). Hence, it is suggested that a balanced time schedule for each skill would give more opportunities for teachers to provide better scaffolding during MSI.

4.5.5 Peer discussions
Whole-class discussions allowed us to give explicit guidance on metacognitive strategies. Nevertheless, a disadvantage in the RT context was that the researchers found it difficult to conduct one-to-one discussions among peers because of a lack of sufficient time. This caused them not to use breakout rooms for small group discussions. Most teachers generally agree that, in a mixed-ability class, less proficient students can usually be guided and advised by more proficient students. Breakout rooms can also facilitate small group discussions and guidance.

However, on account of not knowing the students' native language (Arabic), we could not use breakout rooms to allow students to discuss the metacognitive processes they undertook in their native language, just as Vandergrift (2004) did with his respondents who used their native language (French) during discussions in a face-to-face context. It would have allowed students to elaborate on the way they understood and applied metacognitive strategies during listening tasks.

4.5.6 Classroom Observation of Teachers
Another limitation of this research is that we could not use classroom observation of teachers as a tool to triangulate the data related to their practice of strategy instruction. Classroom observation of teacher participants during MSI could also provide more accurate data related to strategy instruction.

Summing up the discussion, it can be maintained that although most of the teachers are aware of the significance of metacognitive strategy instruction, yet it is not translated into their actual online classroom practice. Moreover, the time spent during the metacognitive strategy intervention and the subsequent results of the students indicate that MSI can contribute significantly in developing and improving students' listening skills in general and, especially, in RT and call for MSI to be a part of teacher training, teaching practice, and curriculum design and development.

5. Implications and Suggestions

The study was conducted during remote teaching with a small population. It spanned a short semester. Conducting the project with a larger population would allow future researchers to comprehensively understand how students use metacognitive strategies in L2 listening. This would also enhance the authenticity of the results.

Due to the semester being shortened, the number of lessons was limited. Having more lessons would enable even less proficient students to understand better the application of these strategies and allow future researchers to provide better scaffolding during the instruction.

This study was planned based on the researchers' empirical observations over a period of time. Informal discussions with faculty members had led the researchers to conclude that students' unsatisfactory performance could be attributed to their inability to use metacognitive strategies. Conducting a systematic needs analysis of students in advance and flexibility in material selection would yield more accurate results.

6. Conclusion

The main purpose of the research was to understand teachers' perspectives regarding students' difficulties in listening, the role of metacognitive strategy instruction in listening through RT, and whether developing metacognitive awareness among students would improve their listening skills. Through remote teaching, the researchers tried to support and engage the students in using metacognitive strategies in various listening tasks. Though it is essential for the teacher to provide scaffolding during listening in various ways (asking concept check questions, asking for clarification), it is difficult to identify the point at which the teacher can stop supporting students and allow them to take control of their learning process. At the end of the intervention, many students reported that they had noticed some improvement and that their confidence had grown in responding to the listening tasks. The reflection of this improvement was also observed in the final exam results. This research is unique in that it offers MSI through RT in Omani context and proffers some strategies to minimize the challenges in teaching metacognitive strategies.

The whole intervention process was a great learning experience for the research team. It provided us with insights into how students used metacognitive strategies during listening tasks. It also brought to the fore the challenges involved in explicit metacognitive strategy instruction in remote teaching and how to address those challenges. Another positive aspect that we noted was that the students, instead of looking to the teacher for answers to difficult questions, either tried to discuss with their friends using the chatbox or focused on the audio again to obtain answers using recently learned metacognitive strategies. To observe such student engagement was indeed satisfactory.

This research project allowed us to have a thorough understanding of explicit MSI and its use in listening. It is highly possible and expected that students will follow these reflective practices in listening and in other academic learning contexts as well.

Acknowledgement

Funding Details

7. References

Abdalhamid, F. (2012). *Listening Comprehension Strategies of Arabic-Speaking ESL Learners*. Master's Dissertation, Department of English, Colorado State University, Fort Collins, Colorado. https://mountainscholar.org/bitstream/handle/10217/65198/Abdalhamid_col ostate_0053N_11014.pdf?sequence=1

Al-Jahwari, M., Al Mekhlafi, A. M., Al-Barwani, T., & Abdulraheim, A. (2019). The Effect of Metacognitive Listening Strategy Instruction on Omani Grade 11 EFL Learners' Listening Comprehension and their Metacognitive Listening Awareness. *International Journal of Learning, Teaching and Educational Research*, 18(9), 256–275. https://doi.org/10.26803/ijlter.18.9.14

Al-Issa, A. (2005b). An ideological discussion of the place & role of exams in the Omani ELT System. Paper presented at redesigning pedagogy: Research, policy, practice conference, Centre for Research in Pedagogy & Practice, National Institute of Education, Nanyang Technological University, Singapore.

Al-Issa, A. (2006). Language problems facing Omani learners of English. ORTESOL, (24), 19–26. https://www.proquest.com/docview/1940534266

AI-Shammari, H. G. (2020). The Impact of Strategy Instruction on Iraqi EFL Learners' Listening Comprehension and Metacognitive Strategy Use. *MEXTESOL Journal*, 44(4). https://eric.ed.gov/?id=EJ1311030

Bermillo, J., & Aradilla, F. J. (2022). Developing Students' Listening Comprehension and Metacognitive Awareness through Metacognitive Process-Based Listening Instruction. *Journal of English Language Teaching and Applied Linguistics*, 4(1), 84–93. https://doi.org/10.32996/jeltal.2022.4.1.8

Brown, H. D. (2007). *Teaching by principles: An interactive approach to language pedagogy* (3rd ed.). Addison-Wesley.

Bozorgian, H. & Alamdari, E. F. (2017). Multimedia listening comprehension: Metacognitive instruction or metacognitive instruction through dialogic interaction. *ReCALL*, 30(1), 131–152.

Bozorgian, H. (2014). The role of metacognition in the development of EFL learners' Listening Skill. *The International Journal of Listening*, 28, 149–161.

Brown, S. (2011). *Listening myths: Applying second language research to classroom teaching*. Ann Arbor: University of Michigan Press.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Buck, G. (2001). *Assessing listening*. Cambridge University Press.

Call, M. (1985). Auditory short-term memory, listening comprehension, and the input hypothesis. *TESOL Quarterly, 19*, 765–781. Retrieved from http://0www.jstor.org.catalog.library.colostate.edu/stable/pdfplus/3586675.pd f?ac

Chamot, A. U., & El-Dinary, P. B. (1999). Children's Learning Strategies in Language Immersion Classrooms. *The Modern Language Journal*, *83*(3), 319–338. http://www.jstor.org/stable/330256

Chamot, A.U. (2004). Issues in language learning strategy research and teaching. *Electronic Journal of Foreign Language Teaching*, 1(1), 14–26. https://www.researchgate.net/publication/237719738_Issues_in_Language_Learning_Strategy_Research_and_Teaching

Chamot, A.U. (2005). Language learning strategy instruction: Current issues and research. *Annual Review of Applied Linguistics*, *25*, 112–130. https://doi.org/10.1017/S0267190505000061

Chang, A. C., Read, J. (2007). Support for foreign language listeners: Its effectiveness and limitations. *Regional Language Centre (RELC) Journal*, 33(3), 375–394. https://doi.org/10.1177/0033688207085853

Chase, B.T., Johannsen, K.L. (2012). *Pathways 3: Listening, speaking and critical thinking*. Heinle Cengage.

Chen, Y. (2005). Barriers to acquiring listening strategies for EFL learners and their pedagogical implications. *The Electronic Journal for English as a Second Language*, 8(4). https://files.eric.ed.gov/fulltext/EJ1068095.pdf

Chiang, C. S., & Dunkel, P. (1992). The Effect of Speech Modification, Prior Knowledge, and Listening Proficiency on EFL Lecture Learning. *TESOL Quarterly*, *26*(2), 345–374. https://doi.org/10.2307/3587009

Cohen, A., Weaver, S., (1998). Strategies-based instruction for second language learners. In Renandya, Renandya, W.A., Jacobs, G.M. (Eds.), *Learners and Language Learning*, Anthology Series 39. SAMEO Regional Language Centre, Singapore, pp. 1-25.

Creswell, J. W. (2012). Qualitative inquiry & research design: Choosing among five approaches (4th ed.). SAGE.

Creswell, J. W., & Creswell, D. J. (2018). Research Design: Qualitative, Quantitative, and Mixed Methods Approaches (5th ed.). SAGE Publications, Inc.

Creswell, J.W. and Plano Clark, V.L. (2011). Designing and conducting mixed methods research. (2nd ed.), SAGE.

Cross, J. (2011). Metacognitive instruction for helping less-skilled listeners. ELT Journal, 65(4), 408-416. https://doi.org/10.1093/elt/ccq073

De Souza, R., Parveen, R., Chupradit, S., Velasco, L. G., Arcinas, M., Tabuena, A. C., Pentang, J. T., & Ventayen, R. J. M. (2021). Language teachers' pedagogical orientations in integrating technology in the online classroom: Its effect on students motivation and engagement. *Turkish Journal of Computer and Mathematics Education, 12*(10), 5001-5014. https://turcomat.org/index.php/turkbilmat/article/view/5268

Dicker, C., Chamot, A. U., & O'Malley, J. M. (1994). The CALLA Handbook: Implementing the Cognitive Academic Language Learning Approach. TESOL Quarterly, 28(3), 647. https://doi.org/10.2307/3587323

Dirkes, M. A. (1985). Metacognition: Students in charge of their thinking. Roeper Review, 8(2), 96–100. EJ 329 760. https://doi.org/10.1080/02783198509552944

Fahim, M., & Alamdari, E. F. (2014). Exploring the effect of the model of metacognitive instruction on the listening performance of EFL learners. *International Journal of Research Studies in Language Learning*, 3(6). https://doi.org/10.5861/ijrsll.2014.700

Farhadi, S., Zoghi, M., & Talebi, Z. (2015). Intermediate EFL learners' listening performance viewed in the light of metacognitive strategy instruction. *Modern Journal of Language Teaching Methods*, 5(3), 140-146.

Field, J. (2003). Promoting perception: Lexical segmentation in L2 listening. *ELT Journal*, 57(4), 325–334. https://doi.org/10.1093/elt/57.4.325

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

Gilakjani, A. P., & Sabouri, N. B. (2016). Learners' listening comprehension difficulties in English language learning: A literature review. *English Language Teaching*, 9, 123–133. https://doi.org/10.5539/elt.v9n6p123

Goh, C. C. M. (2000). A cognitive perspective on language learners' listening comprehension problems. *System*, 28(1), 55–75. https://doi.org/10.1016/s0346-251x(99)00060-3

Goh, C. (2002b). Learners' self-reports on comprehension and learning strategies for listening. *Asian Journal of English Language Teaching*, 12, 46–68.

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., & 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. (2017). Research into practice: Listening strategies in an instructed classroom setting. *Language Teaching*, 50(1), 107–119. https://doi.org/10.1017/S0261444816000306

Greenberg, S. N & Roscoe, S. (1987). Echoic memory interference and comprehension in a foreign language. *Language Learning, 38*, 209–219. https://doi.org/10.1111/j.1467-1770.1988.tb00409.x

Harding, L., Anderson, J. C., & Brunfaut, T. (2015). Diagnostic assessment of reading and listening in a second or foreign language: Elaborating diagnostic principles. *Language Testing*, 32(3), 317–336. https://doi.org/10.1177/0265532214564505

Hasan, A. S. (2000). Learners' perceptions of listening comprehension problems. *Language, Culture and Curriculum*, 13, 137–153. https://doi.org/10.1080/07908310008666595

Higgins, J. M. D. (1995) "*Facilitating listening in second language classrooms through the manipulation of temporal variables*." Unpublished doctoral thesis, University of Kent at Canterbury.

Khonamri, F., & Ahmadi, F. (2015). The effect of metacognitive strategy training and raising efl learners' metacognitive knowledge on listening performance. *Indonesian Journal of Applied Linguistics*, 5(1), 19-28. https://doi.org/10.17509/ijal.v5i1.827

Kobayashi, A. (2018). Investigating the effects of metacognitive instruction in listening for EFL Learners. *The Journal of Asia TEFL*, 15, 310–328.

Krashen, S. D., & Terrell, T. D. (1983). *The natural approach: Language acquisition in the classroom*. Alemany Press.

Krishnan, K. S., Yaacob, A., & Veloo A. (2020) The Effect of Meta cognitive Strategy Training on ESL Pre-University Students' Listening Achievement. *Elementary Education Online*, 19 (3), 68-76. http://doi.org/10.17051/ilkonline.2020.03.103

Kurita, T. (2012). Issues in second language listening comprehension and the pedagogical implications. *Asia Accents, 5*(1), 30–44.

Lai, Y. (2009). Language learning strategy use and English proficiency of university freshmen in Taiwan. *TESOL Quarterly*, 43 (2), 255–280. https://doi.org/10.1002/j.1545-7249.2009.tb00167.x

Lee, Y. J., & Cha, K. W. (2020). Writing Listening Logs and Its Effect on Improving L2 Students' Metacognitive Awareness and Listening Proficiency. *International Journal of Contents*, 16(4), 50–67. https://doi.org/10.5392/IJOC.2020.16.4.050

Lim, T. D. (2013). *Analyzing Malaysian English classrooms: Reading, writing, speaking and listening teaching strategies*. University of Washington. http://hdl.handle.net/1773/25020

Linang, E. R. (2005). Teachers report on the use of pre-listening activities in activating students' prior knowledge in a Malaysian ESL classroom in Kuching. Universiti Malaysia Sarawak. http://ir.unimas.my/id/eprint/4195

Liu, H. (2008). A study of the interrelationship between listening strategy use, listening proficiency, and learning style. Annual Review of Education, Communication, and Language Sciences (ARECLS), 8, 84–104. https://research.ncl.ac.uk/media/sites/researchwebsites/arecls/liu_vol5.pdf.

Lotfi, G. (2012). A questionnaire of beliefs on English language listening comprehension problems: Development and validation. *World Applied Sciences Journal*, 16, 508–515. http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.389.5194&rep=rep1&type=pdf.

Mahdavi, N., & Miri, M. (2016). 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

Lotfi, G., Maftoon, P., & Birjandi, P. (2012). Learning to listen: Does intervention make a difference?. *The Language Learning Journal*, 44(1), 107-123.

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

Murphy, J.M. (1985). An investigation into the listening strategies of ESL college students. (ERIC Document Reproduction Service No. ED278275). http://files.eric.ed.gov/fulltext/ED278275.pdf

Murphy, J.M. (1986). *An investigation into the listening strategies of ESL college students*. Doctoral dissertation, Teachers College of Columbia University, Columbia). *Dissertation Abstracts International, 46*, 2677A.

Nation, I. S. P., & Newton, J. (2009). *Teaching ESL/EFL listening and speaking*. Routledge. https://repository.bbg.ac.id/bitstream/611/1/Teaching_ESL_EFL.pdf

Nguyen, H. & Abbott, M.L. (2016). Promoting process-oriented listening instruction in the ESL classroom. *TESL Canada Journal* 34(11), 72–86. http://files.eric.ed.gov/fulltext/EJ1145020.pdf

O'Malley, J. M., Chamot, A. U., Stewner-Manzanares, G., Kupper, L., & Russo, (1985a). Learning strategies used by beginning and intermediate ESL students. *Language Learning, 35(*1), 21–46. https://doi.org/10.1111/j.1467-1770.1985.tb01013.x

O'Malley, J. M., Chamot, A. U., & Kupper, L. (1989). Listening comprehension strategies in second language acquisition. *Applied Linguistics,* 10(4), 418–437. https://doi.org/10.1093/applin/10.4.418

O'Malley, J. M. & Chamot, A. U. (1990). *Learning strategies in second language acquisition*. Cambridge University Press.

Oxford, R. (1990). *Language learning strategies: What every teacher should know*. Heinle & Heinle.

Oxford, R. (2003). Language learning styles and strategies: An overview. *Proceedings of GALA (Generative Approaches to Language Acquisition) Conference*, 1-25.

https://web.ntpu.edu.tw/~language/workshop/read2.pdf

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, 28,162–176. https://doi.org/10.1080/10904018.2014.902315

Renandya, W. A., & Farrell, T. S. C. (2011). "Teacher, the tape is too fast!" Extensive listening in ELT. *ELT Journal*, 65(1), 52–59. https://doi.org/10.1093/elt/ccq015

Rivera, C.K. (2018). The Effects of Metacognitive Listening Strategy Instruction on ESL Learners' Listening Motivation. *Thesis and Dissertations. 7423* https://scholarsarchive.byu.edu/etd/7423

Rost, M. (2002). *Teaching and researching listening*. Pearson Education.

Rubin, J. (1987). Learner strategies: Theoretical assumptions, research history, and typology. In A.Wenden and J. Rubin (Eds). *Learner strategies in language learning*. Prentice Hall International, 15–30.

Rubin, J. (1994). A review of second language listening comprehension research. *The Modern Language Journal*, *78*(2), 199-221. https://doi.org/10.1111/j.1540-4781.1994.tb02034.x

Siegel, J. (2014). Exploring L2 listening instruction: Examinations of practice. *ELT Journal*, 68(1), 22–30. https://doi.org/10.1093/elt/cct058

Siegel, J. (2015). *Exploring listening strategy instruction through action research*. Palgrave Macmillan.

Siegel, J., & Siegel, A. (2015). Getting to the bottom of L2 listening instruction: Making a case for bottom-up activities. *Studies in Second Language Learning and Teaching*, 5(4), 637-662. https://doi.org/10.14746/ssllt.2015.5.4.6

Schmidt, A. (2016). Listening journals for extensive and intensive listening practice." *English Teaching Forum*, 54(2), 2–11. http://files.eric.ed.gov/fulltext/EJ1104020.pdf

Taguchi, K. (2017). Metacognitive listening strategy instruction for EFL learners. *The Bulletin of the Institute of Human Sciences*, Toyo University, 19, 63–83. https://www.toyo.ac.jp/uploaded/attachment/111208.pdf

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. (1997). The comprehension strategies of second language (French) listeners: A descriptive study. *Foreign Language Annals*, 30(3), 387–409. https://doi.org/10.1111/j.1944-9720.1997.tb02362.x

Vandergrift, L. (1999). Facilitating second language listening comprehension: acquiring successful strategies. *ELT Journal*, *53*(3), 168–176. https://doi.org/10.1093/elt/53.3.168

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. (2004). Listening to learn or learning to listen? *Annual Review of Applied Linguistics*, 24, 3–25. https://doi.org/10.1017/s0267190504000017

Vandergrift, L. (2006). Second language listening: Listening ability or language proficiency? *The Modern Language Journal*, *90*(1), 6–18. https://doi.org/10.1111/j.1540-4781.2006.00381.x

Vandergrift, L. (2007). Recent developments in second and foreign language listening comprehension research. *Language Teaching*, 40(3), 191–210. https://doi.org/10.1017/s0261444807004338

Vandergrift, L. (2010). Researching listening. In B. Paltridge, & A. Phakiti (Eds.), *Continuum companion to research methods in applied linguistics* (pp. 160–173). Continuum.

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

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

Voth, M., n.d. Action Research. [online] Miriam Voth. Available at: https://miriamvoth.weebly.com/action-research.html

Wang, L., & MacIntyre, P. (2021). Second language listening comprehension: The role of anxiety and enjoyment in listening metacognitive awareness. *Studies in Second Language Learning and Teaching*, *11*(4), 491-515. https://doi.org/10.14746/ssllt.2021.11.4.2

Wenden, A. (1991). *Learner strategies for learner autonomy*: *planning and implementing learner training for language learners.* Prentice Hall.

Wenden, A. (1998). Metacognitive knowledge and language learning. *Applied Linguistics* 19(4), 515–537. https://doi.org/10.1093/applin/19.4.515

White, G. (2008). Listening and good language learners. In C. Griffiths (Ed.), *Lessons from good language learners* (pp. 208–217). Cambridge University Press.

Yesilyurt, E. (2013). An analysis of teacher candidates' usage level of meta-cognitive learning strategies: Sample of a university in Turkey. *Educational Research and Reviews*, 8(6), 218–225. https://academicjournals.org/journal/ERR/article-abstract/86E65A74477

Yıldırım, S., Yıldırım, Ö. (2016). The importance of listening in language learning and listening comprehension problems experienced by language learners: A literature review. *Abant İzzet Baysal Üniversitesi Eğitim Fakültesi Dergisi*, 16(4), 2094–2110. https://dergipark.org.tr/tr/download/article-file/291967