REPUBLIC OF TURKEY
YILDIZ TECHNICAL UNIVERSITY
GRADUATE SCHOOL OF SOCIAL SCIENCES
DEPARTMENT OF FOREIGN LANGUAGES EDUCATION
ENGLISH LANGUAGE TEACHING PROGRAM

MASTER'S THESIS

THE IMPACT OF METACOGNITIVE INSTRUCTION ON LISTENING COMPREHENSION PERFORMANCE, METACOGNITIVE LISTENING AWARENESS, AND LISTENING ANXIETY OF EFL LISTENERS AT THE TERTIARY LEVEL IN TURKEY

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BERKE SARISOY tarafından hazırlanan “Üstbilişsel Öğretimin, Türkiye'de Yükseköğretim Düzeyindeki Yabancı Dil Dinleyicilerinin Dinlediğini Anlama Performansı, Üstbilişsel Dinleme Farkındalığı ve Dinleme Kaygısı Üzerindeki Etkisi” başlıklı çalışma, **20 / 02 / 2023** tarihinde yapılan savunma sınavı sonucunda oybirliği ile başarılı bulunmuş ve jürimiz tarafından Yabancı Diller Eğitimi Anabilim Dalı/ İngiliz Dili Eğitimi Programında **YÜKSEK LİSANS** tezi olarak kabul edilmiştir.

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ABSTRACT

THE IMPACT OF METACOGNITIVE INSTRUCTION ON LISTENING COMPREHENSION PERFORMANCE, METACOGNITIVE LISTENING AWARENESS, AND LISTENING ANXIETY OF EFL LISTENERS AT THE TERTIARY LEVEL IN TURKEY

This study aimed to examine the impact of eight weeks of process-based metacognitive listening training on the listening performance, metacognitive awareness and listening anxiety of B1 level 43 Turkish EFL listeners at a state university. This study employed a mixed-methods design involving quasi-experimental design with a pre-and post-test, experimental-control group and qualitative data. The quantitative data were collected using listening section of Preliminary English Test (PET) as a pretest, post-test, and delayed post-test to evaluate the participants' listening comprehension. Second, metacognitive awareness of listening was examined with the Metacognitive Awareness Listening Questionnaire (MALQ) before, during, and after metacognitive instruction. Thirdly, the Foreign Language Listening Anxiety Scale (FOLLAS) was used to assess the participants' levels of listening anxiety before and after the intervention. The qualitative data were collected through semi-structured interviews to examine participants' attitudes regarding metacognitive instruction. The results show that in comparison to traditional listening instruction, metacognitive instruction did not result in a statistically significant improvement in the listening performance of L2 learners. However, it was discovered that the intervention improved the metacognitive listening awareness of the participants in the experimental group. Similarly, the results indicate that metacognitive listening instruction enabled learners to reduce listening anxiety levels significantly. Finally, in light of the relevant literature, the research discussion of the findings and suggestions for future research on listening instruction are presented.

Key Words: L2 listening performance, metacognitive listening instruction, listening anxiety, process-based approach, L2 listening anxiety.

ÖZET

ÜSTBİLİŞSEL ÖĞRETİMİN, TÜRKİYE'DE YÜKSEKÖĞRETİM DÜZEYİNDEKİ YABANCI DİL DİNLEYİCİLERİNİN DİNLEDİĞİNİ ANLAMA PERFORMANSI, ÜSTBİLİŞSEL DİNLEME FARKINDALIĞI VE DİNLEME KAYGISI ÜZERİNDEKİ ETKİSİ

Bu çalışmanın amacı, sekiz haftalık süreç temelli üstbilişsel dinleme öğretiminin bir devlet üniversitesindeki B1 seviyesindeki 43 Türkçe yabancı dil dinleyicisinin dinleme performansı, üstbilişsel farkındalığı ve dinleme kaygısı üzerindeki etkisini incelemektir. Bu çalışmada, ön test-son test ve deney-kontrol gruplu karma yöntemli yarı deneysel bir tasarım kullanılmıştır. Katılımcıların dinlediklerini anlamalarını değerlendirmek için ön test, son test ve gecikmeli son test olarak PET (B1) dinleme bölümü kullanılarak nicel veriler toplanmıştır. İkinci olarak, dinlemeye ilişkin üstbilişsel farkındalık, üstbilişsel öğretimin öncesinde, sırasında ve sonrasında Üstbilişsel Farkındalık Dinleme Anketi (MALQ) kullanılarak değerlendirilmiştir. Üçüncü olarak, Yabancı Dil Kaygı Ölçeği (FOLLAS) katılımcıların dinleme kaygısı düzeylerini müdahale öncesinde ve sonrasında değerlendirmek için kullanılmıştır. Nitel veriler, katılımcıların üstbilişsel öğretime ilişkin tutumlarını incelemek amacıyla yarı yapılandırılmış görüşmeler yoluyla toplanmıştır. Sonuçlar, geleneksel öğretimle karşılaştırıldığında, üstbilişsel öğretimin L2 öğrencilerinin dinleme performansında istatistiksel olarak anlamlı bir iyileşmeye yol açmadığını göstermektedir. Bununla birlikte, üştbilişsel öğretimin deney grubundaki katılımcıların üstbilişsel dinleme farkındalığını geliştirdiği ortaya çıkmıştır. Benzer şekilde, üştbilişsel öğretimin katılımcıların yabancı dil dinleme kaygılarında azalmaya neden olduğu buluntularla ortaya konmuştur. Son olarak, ilgili literatür ışığında, araştırma bulgularının tartışılması ve dinleme öğretimi üzerine gelecekteki araştırmalar için öneriler sunulmuştur.

Anahtar Kelimeler: İkinci dil dinleme performansı, üst bilişsel dinleme öğretimi, süreç odaklı yaklaşım, ikinci dil dinleme kaygısı

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ABBREVIATIONS

ANOVA **:**Analysis of variance
BBC :British Broadcasting Corporation
CALLA **:**The Cognitive Academic Language Learning Approach
CEFR :Common European Framework for Reference
CI **:**Confidence Interval
EFL :English as a Foreign Language
ELT **:**English Language Teaching
FOLLAS **:**Foreign Language Listening Anxiety Scale
IELTS **:**International English Language Testing System
L1 :First language – Mother tongue
L2 :Second language
MALQ :Metacognitive Awareness Listening Questionnaire
PET **:**Preliminary English Test
SPSS :Statistical Package for the Social Sciences
TOEFL :Testing of English as a Foreign Language

1. INTRODUCTION

This study aims to identify the impact of metacognitive instruction on EFL learners' listening performance, metacognitive listening awareness levels, and listening anxiety levels. This chapter initially discusses the problem of the study, followed by related studies in literature. Secondly, the aim of the study and its significance will be explained. The section will be followed by research questions. Lastly, the definitions of important concepts are explained.

1.1. The Statement of the Problem

Second language listening (L2) is crucial in effectively communicating in real life (Mendelsohn, 1994; Xu and Huang, 2018). Listening is considered as the most complex and most used skill among the four basic skills in second language learning (Rost, 2001; White, 2006). It is complex because L2 listeners must process various inputs with various difficulties (Vandergrift & Baker, 2015).

According to the listening comprehension construct known as *the systems model of listening* by Imhof and Janusik (2006), how successfully a listener processes listening input depends on different factors, such as cognitive and affective factors as well as contextual factors. According to this integrated model, person factors (cognitive and affective) can influence the listening process and listening outcome. For example, a lack of linguistic knowledge may result in poor comprehension. Similarly, the outcome of listening can affect person factors which also influence the listening process. For instance, due to miscomprehension, motivation, which is an affective factor, can also be badly affected. On the other hand, Vandergrift and Goh (2012) listed the factors differently and stated that while affective factors consist of anxiety, motivation, and self-efficacy, cognitive factors include linguistic knowledge, metacognition, prior knowledge, working memory capacity, discourse knowledge, L1 listening ability and the ability of auditory discrimination. Contextual factors can be listed in three titles as interactive listening, listening in formal and informal contexts.

Considering anxiety as one of the affective factors, Horwitz, Horwitz and Cope (1986) emphasized the importance of reducing anxiety in foreign language classroom since anxiety hinders learning. One of the reasons of anxiety related to the listening skill might be explained by its nature. Firstly, listening is an anxiety-provoking skill along with speaking skill (Golchi, 2012). The reason is that learners should regulate a series of processes while listening at the same time, and this creates anxiety. Vogely (1999) stated that learners feel anxious because of four reasons. Firstly, listeners are afraid of failing in listening tasks. Secondly, listeners worry about the difficulty or level of the listening. Thirdly, since they do not employ or do not acknowledge listening strategies, they feel unsuccessful and incompetent. Lastly, the features of the speaker, such as the speech speed, and differences in pronunciation, such as unfamiliar accents or speech clarity, are listed as the source of listening anxiety.

Listening anxiety in a foreign language can be reduced by providing learners with ways to improve their listening comprehension (Vogely, 1998). To achieve this, it is crucial to inquire into the link between listening-related anxiety in L2 and the use of L2 listening strategies. Several research studies examined the correlation among both listening anxiety and the utilization of listening strategies and indicated a negative correlation. This implies that the adoption of listening strategies reduces the anxiety of learners during listening, or that those who do not employ strategies have higher levels of anxiety. (Gönen, 2009; Golchi, 2012; Berber, 2016).

Although the listeners are to process input consciously and unconsciously while engaging in listening, until the 1950s, listening in L2 was considered a passive skill since it was thought to be developed only through exposure similar to L1 listening development (Siegel, 2015). Therefore, it was ignored and regarded not as a skill that needed to be instructed but rather a naturally occurring phenomenon (Goh, 2010; Spear-Swerling, 2016). In addition to being left behind in teaching language classrooms, especially when compared to reading and writing skills, L2 listening research has also been neglected and left behind in the field (Goh, 2017).

However, the perspective on L2 listening has changed in the last 20 years, and it has been recognized as a skill that needs special training to develop and as a way to fulfill the listening objectives and thus achieve better comprehension (Chamot, 2005; Cohen, 2011; Oxford, 1990). Especially concerning listening skill models, there has been a shift in methodology aligned with the shift in language teaching approaches

(Vandergrift and Goh, 2012). For instance, while early language learning models were generally text-oriented and the orientation shifted towards more communicative approaches, this affected listening models which later oriented around communicative approaches. Finally, with more learner-centered teaching approaches, listening teaching models were also shaped accordingly. Understanding the fundamental mechanisms of how successful learners solve language challenges cognitively or by employing strategies and figuring out how to teach these strategies to the less successful ones were the goals of strategy-based instruction as a learner-centered approach (Cohen, Weaver & Li, 1996; Goh, 1998; Mendelsohn, 1994; O'Malley, Chamot, & Küpper,1989; Oxford, 1996).

In the strategy-based approach, successful learners utilize strategies listed under three broad headings: cognitive strategies, metacognitive strategies, and social/affective strategies. (O'Malley & Chamot, 1990; Vandergrift, 1997). Cognitive strategies refer to mental activities that learners resort to while being exposed to the language (Vandergrift, 2003). During these mental activities, L2 listeners try to decode the input through their background knowledge, such as pragmatic knowledge and discourse knowledge (top-down processing), as well as decoding and perceiving linguistic elements (bottom-up processing). On the other hand, metacognitive strategies are utilized to select cognitive strategies, monitor, and evaluate language learning (Vandergrift & Goh, 2012; Siegel, 2015), and compared to less successful listeners, skilled listeners utilize more metacognitive strategies (Vandergrift, 2003).

Several studies found listening strategy training helpful in helping learners regulate and monitor their listening skills and overcome task difficulties. For instance, Goh (2002) notes that for effective learning, the learner should know how to use metacognitive strategies since utilizing them is directly related to high metacognitive awareness, which helps them develop their skills autonomously. According to Skehan (1998), metacognitive strategies involve thinking about and regulating one's learning and these strategies can increase flexibility in facilitating social-affective and cognitive strategies. This flexibility helps to give purpose and direction to how these strategies are used and increases the likelihood that the appropriate strategy is chosen for a given situation. Different methods and several instructional models have been utilized in the research studies to investigate the effects of the instruction of metacognitive strategies.

In the context of Turkey, although some studies were carried out to integrate metacognitive strategies into listening instruction at the university level (Özbilgin, 1993; Yeşilbursa, 2002) and high school level (Katrancı & Yangın, 2013) with different models, inventories (e.g., SILL by Oxford, 1990) and methodologies; *metacognitive instruction (MI) with a process-based approach* has become a subject of interest and research within the past few years. For instance, in the quasi-experimental study, Coşkun (2010) aimed to find whether metacognitive instruction given to 40 beginner EFL learners at the tertiary level influenced their listening performances. This study was one of the early studies that investigated the relationship between metacognitive instruction and listening in Turkey. The Cognitive Academic Language Learning Approach (CALLA) proposed by O'Malley and Chamot (1990) was adopted as an instructional model for metacognitive instruction embedding the instructional model into the coursebook activities. Other data collection tools were listening tests to assess listening performance before and after the instruction and a listening performance checklist developed by Vandergrift (1997) to make learners assess themselves to improve awareness and the Metacognitive Awareness Listening Questionnaire (the MALQ) (Vandergrift, Goh, Mareschal, and Tafaghodtari, 2006) were distributed to the learners to discuss strategies after every listening activity. The results indicated that the listening performance and metacognitive awareness of learners showed enhancement after the metacognitive instruction, and the author suggested that metacognitive instruction should be embedded into the listening instruction.

Moreover, two studies in the EFL context in Turkey adopted process-based listening instruction embedded with the metacognitive pedagogical sequence in their studies. While these research studies utilize the same metacognitive instruction model to assess its effect on listening performance, they differ in terms of participants, English proficiency level, and data collection methods.

Yılmaz (2018) questioned the effectiveness of metacognitive instruction and examined its effects on listening performance. Another study question was related to its effects on the metacognitive awareness levels of the participants. A mixed-methods research design was adopted in this study. By having a quasi-experimental research design, the study examined the variables before and after the intervention, which lasted for eight weeks. Cambridge KET exam and the Metacognitive

Awareness Listening Questionnaire (Vandergrift et al., 2006) were selected as instruments for data gathering. Semi-guided interviews provided support for quantitative research findings. It was shown that metacognitive listening instruction improved the listening comprehension and metacognitive awareness of A2-level 71 mechanical engineering learners. The results of the interviews revealed that the learner's motivation to develop their listening abilities increased while their listening anxiety was reduced.

Yetiş (2021) examined the effects of an eight week process-oriented metacognitive training on metacognitive awareness and comprehension of listening of 37 B2 level learners at the ELT (English Language Teaching) department, considering their prep school experiences and different listening proficiency levels. Mixed methods research design and a quasi-experimental study with pretest, posttest, experimental, and control groups were adopted. Quantitative data were collected in three phases at the beginning, middle, and end of the study through the MALQ to examine the changes happening in the metacognitive awareness levels of the listeners. The listening section of an IELTS test was used as a pretest and posttest to measure learners' listening comprehension performance. On the other hand, through stimulated recall protocols, the changes in these phases and the possible reasons for these changes were examined. These findings constitute the qualitative part of the study. To examine changes in responses to the scales throughout the intervention, stimulated recall protocols were administered to the experimental group at the study's beginning, middle, and end. The results suggested that while the experimental group showed a statistically significant difference in their listening performance in the posttest at the medium effect level, the increase observed at the end of the study in their general listening skill metacognitive awareness, which was also analyzed in terms of MALQ subdimensions, was moderate and not significant. On the other hand, preparatory school experience was found to be highly related to high listening performance.

Some studies examine the relationship between metacognitive listening instruction and its effect on listening anxiety in different settings (e.g. Golchi, 2012; Hu, 2014; Movahed, 2014). On the other hand, although there are studies which investigated the effect of strategy use on foreign language listening anxiety (Berber & Gönen, 2017; Gönen, 2009), there is a scarcity of research regarding the investigation of

metacognitive awareness, listening comprehension performance, and listening anxiety in Turkey.

Considering the discussions and findings of studies in the literature, a study measuring the effect of process-based metacognitive instruction on listening performance and overall metacognitive awareness levels and the effect of this metacognitive instruction on learners' listening anxiety with B1 level participants in the Turkish context has not been found in the literature in the same context. It was deemed necessary to conduct this study by considering previous studies' suggestions.

1.2. The Significance of the Research

This study aims to investigate firstly, whether metacognitive instruction has an effect on learners' metacognitive awareness regarding listening. Secondly, the study investigates the impact of the instruction on listening anxiety, as well as their listening performance. In addition to this, it intends to learn about the participants' perspectives on metacognitive listening instruction.

According to the research that have been conducted, metacognitive listening instruction has a beneficial impact on both listening performance and metacognitive awareness. In addition, listening anxiety is a prevalent problem among learners learning English as a Foreign Language (EFL), and it can have a severe impact both on the learners' ability to comprehend what they hear and on their overall performance. According to what the researcher experienced in her own classroom environment during listening lessons, listening anxiety is indeed a key challenge for learners to overcome in order to improve themselves in language. This seems to be especially relevant in the context of Turkey, where learners have the anxiety.

It is anticipated that the findings of this study will have some significant ramifications for teaching listening skill. For instance, teachers can better support English as a Foreign Language (EFL) learners who may be dealing with listening anxiety if they have a solid understanding of the effect that metacognitive instruction through a pedagogical sequence has on listening anxiety. Moreover, understanding the connection between metacognition, anxiety, and listening performance can assist teachers in developing lesson plans and activities that are tailored to meet the unique requirements of EFL learners.

1.3. The Purpose of the Research

This study aims to discover the impact of metacognitive instruction through the pedagogical sequence on listening performance, metacognitive awareness of listening, and foreign language listening anxiety of L2 learners at a preparatory school in Turkey. First and foremost, it investigates the extent to which metacognitive instruction influences the listening comprehension performance of EFL listeners. Second, the purpose of this study is to investigate the extent to which metacognitive instruction influences the participants' metacognitive awareness of listening. In addition, it seeks to determine whether metacognitive instruction in listening was beneficial in reducing listeners' listening anxiety.

The following research questions were developed for the aim of this study:

R. Q. 1. What is the impact of metacognitive instruction on L2 learners' listening performance?

1.1. Is there a statistically significant difference among groups before and after the intervention?

1.2. Is there a statistically significant difference within groups before and after the intervention?

R. Q. 2. What is the impact of metacognitive instruction on L2 learners' metacognitive awareness of listening?

1.1. Is there a statistically significant difference among groups before and after the intervention?

1.2. Is there a statistically significant difference within groups before and after the intervention?

R. Q. 3. What is the impact of metacognitive instruction on learners' foreign language listening anxiety?

R Q. 4. What are the learners' perceptions of metacognitive listening instruction related to listening performance, metacognitive awareness, and listening anxiety?

1.4. Definitions of terms

The definitions of important terms which are essential are listed below in order to avoid possible misconceptions:

Metacognition refers to one's awareness related to themselves and control on their thinking to achieve a goal. It helps to regulate and optimize cognitive processes, allowing for better decision-making and problem-solving (Flavell, 1976).

Metacognitive awareness refers to the act of reviewing the mental processes, understanding them, and adapting them for better performance and goal achievement (Vandergrift & Goh, 1997).

Metacognitive Instruction refers to a set of pedagogical practices that promote self-awareness and self-reflection on learning.

Metacognitive Pedagogical Sequence: Metacognitive Pedagogical Sequence is described as a series of activities combining listening comprehension activities with the ones raising metacognitive awareness (Vandergrift & Goh, 2012).

Foreign Language Anxiety: Foreign Language Anxiety is described as the fear of language, which is felt by someone who is insufficiently proficient in a foreign language (Gardner & MacIntyre, 1993).

2. LITERATURE REVIEW

The literature review on metacognition, listening instruction models, and listening anxiety are presented in this section. Related studies followed the theoretical concepts.

2.1. L2 Listening Instruction

Although listening as a foreign language skill has remained in the background compared to other skills, it has started to find its place in the last half-century. During these 50 years, Vandergrift and Goh (2012) stated that listening instruction has had three different types of orientations.

2.1.1. Text-Based Listening Instruction

According to Brown (1987), listening instruction in the 1950s was influenced by writing and reading pedagogy and was practiced similarly to reading. In particular, grammatical structures and phoneme discrimination exercises were practiced intensively in the lessons. Similar to reading lessons, the tasks in listening instruction turned into a competition in which the learner had to prove their comprehension. Vandergrift and Goh (2012) listed the challenges of text-oriented listening instruction in terms of testing, the type of input, and the nature of the listening. For instance, in text-oriented instruction, listening lessons were based on remembering and imitating sound patterns and grammar structures. Learning aims were limited to decipher the patterns of sounds and grammar structures to reach comprehension. Listening passages were usually made into tasks by reading a written text aloud, and listening was a passive skill in which all interaction consisted of responding to the teacher in a form of short answers. In this way of teaching, listening was never taught as a language skill. Instead, the learners' comprehension was constantly tested and has still being tested in the form of multiple choice listening tests. Moreover, the texts used did not reflect actual spoken language since they were not suitable for

listening activities, were lexically dense, and had complicated grammatical structures. These problems put much mental strain on learners' working memories.

2.1.2. Communication-based Listening Instruction

The emergence of communicative language teaching approach in the 1970s affected listening instruction as it affected the whole field of language teaching. Vandergrift and Goh (2012) explained this change, indicating that with a new syllabus design, it was the first time that listening began to be seen as a distinct skill from the other four skills. After the introduction of the communicative syllabus, listening taxonomies (Richards, 1983) and frameworks (Rixon, 1981) emerged.

These changes also affected the materials and coursebook designs to teach listening at the macro and micro levels with subskills. Listening materials were designed to be more authentic and included everyday conversations ranging from different situations. Anderson and Lynch (1988) introduced pre-listening activities whose goals were to help learners to activate their background knowledge during the listening. With communication-oriented listening instruction, the types of listening input were intended to be more authentic. Listening activities became more communicative in contrast to text-oriented instruction, and peer communication was promoted thanks to pre-listening activities such as discussions and mind maps.

It was seen that even though the communicative language teaching methodology was integrated into the four language skills, listening skills did not go beyond playing an auxiliary role to production skills. As Vandergrift and Goh (2012) pointed out, as important as listening skill is for oral communication, listening instruction could not find a special place in language classrooms. Learners were not trained to how to listen to reach the information and organize their own learning. The focus in this type of instruction was on how information was transferred orally. This lack of focus to teach “how to listen to” led researchers to study to find different instructions which might enable learners to learn effective listening strategies.

2.1.3. Learner-based Listening Instruction

Learner-centered approaches began to be adopted throughout the latter half of the 20th century. As the factors affecting language learning were investigated, it became clear that successful language learners use specific learning strategies, and this

assertion was supported by the work of prominent linguists (O'Malley & Chamot, 1990; Oxford, 1990).

According to Oxford (1990), foreign language learning strategies might be listed as direct and indirect strategies. While direct strategies include compensation, memory, and cognitive strategies; indirect strategies can be listed as metacognitive, affective, and social strategies. According to Oxford's taxonomy, memory strategies were related to the strategies to help learners to decode constructive pieces of new knowledge, such as sound systems and sound patterns. Compensation strategies were related to strategies such as guessing meaning regarding context to help learners to comprehend knowledge. Finally, cognitive strategies were meant to teach learners how to regulate materials to their benefit with the use of some techniques, such as note-taking. As one of the indirect strategies, metacognitive strategies aim to acquire skills in planning, evaluating, and regulating someone's own learning. Social strategies help learners how to acquire knowledge during their social interaction. Affective strategies include strategies that help learners to deal with their emotions, such as anxiety and mindset toward acquiring knowledge.

O'Malley, Chamot, and Küpper (1989) designed another taxonomy of comprehension strategies specifically for listening. It has been in use for many years and is considered groundbreaking. The taxonomy categorizes listening strategies under the titles of cognitive (*note-taking, contextualization, inferencing, repetition, translation, directed physical response*), metacognitive (*directed attention, self-evaluation, selective attention*), and affective strategies *(asking for clarification, cooperation)*. This includes a metacognitive function for directing learning and a cognitive function for interacting with the content being learned or making use of a particular strategy for a learning task. In addition, socio-affective methodologies consider not just the learners' feelings and motivations but also the impact that social and affective processes have on the educational experience. With these classifications, the importance of strategy training was promoted by a new approach. Based on a strategy-based approach (Mendelsohn, 1994; Mendelsohn, 1998), numerous implications were claimed, such as tailoring curricula. The approach in the socio-cognitive paradigm emphasized the effect of learners' emotions, motivations, and attitudes on learning. Therefore, it was proposed that teaching listening strategies should be tailored to the specific preferences of learners, providing them with

opportunities to practice their listening skills in authentic and relevant contexts, and providing them with feedback and self-reflection opportunities. Therefore, some teaching techniques, such as think-aloud protocols or teaching modeling on the application of the strategies, were found effective in helping learners develop their listening skills. Additionally, pre-listening activities were suggested to be a good way of raising learners' awareness of the listening process.

However, Vandergrift and Goh (2012) argue that strategic approaches mainly focus on using cognitive strategies, and they fail to help learners develop metacognitive listening strategies. In addition, even if learners learn about the strategies, they do not have sufficient opportunities to have other practical learning experiences in implementing those strategies into practice.

2.2. Metacognitive Listening Instruction and Metacognitive Pedagogical Sequence

The metacognitive approach to teaching listening, as proposed by Vandergrift (2004, 2007) and Goh (1997, 2008), emphasizes the importance of learners' active role in developing their listening skills. Metacognitive instruction focuses on the specific actions that learners can take to improve their listening abilities when engaging with an auditory input. By providing learners with strategies and techniques that they can use to help themselves listen better and by promoting collaborative learning, this approach aims to support their overall listening development in a holistic manner (Vandergrift & Goh, 2012).

One of the key advantages of this approach is that it can be applied in various settings, from the classroom to beyond. This allows learners to practice and develop their listening skills in various contexts, leading to a more comprehensive understanding of the listening process and helping to improve their listening abilities in real-life situations. Furthermore, this approach emphasizes the need for learners to be aware of their own cognitive and metacognitive processes, which can lead to better self-regulation and self-awareness, which are essential for overall listening development.

Vandergrift (1999, 2004, 2007) originally presented an L2 listening pedagogical model named *metacognitive pedagogical sequence*, rooted in a process-based

approach, which helps learners develop metacognitive awareness and promote learner autonomy through some pedagogical sequences to improve the effectiveness of listening skills development. It can be described as an instructional model that combines metacognitive training with listening activities and is designed to enable learners to get a deeper grasp of the material being presented, as well as the processes they use to comprehend it. The model provides a structured framework that guides learners in analyzing their own listening habits and techniques, which in turn allows them to make adjustments and improve their comprehension. Through metacognitive instruction with pedagogical sequence, learners are able to gain a greater level of control over their cognitive processes while listening, leading to enhanced learning outcomes. Considering that it is much more helpful than simply presenting listening strategies deductively to the listeners, this pedagogical sequence model involves activities that focus on metacognitive awareness and comprehension of listening material in a specific sequence. Through the pedagogical sequence model, teachers can provide learners with the opportunity to follow procedures that guide their listening processes, including planning, monitoring, evaluating, and reflecting on their performance. Metacognitive instruction adopting a process-based approach has been shown to help learners gain more control and proficiency in their listening skills (Bozorgian, 2012; Vandergrift & Goh, 2012).

Several investigations have pointed to the fact that metacognitive listening instruction through pedagogical sequence was beneficial for raising the metacognitive awareness of L2 learners while it enriches their listening comprehension skills in both EFL and ESL contexts (Bozorgian & Alamdari, 2018; Coşkun, 2010; Goh & Taib, 2006; Goh, 2017; Graham & Macaro, 2008; Mareschal, 2007; Vandergrift, 2004; Vandergrift, 2007).

2.3. Recent Studies on Metacognitive Instruction and Listening Comprehension

Although the concept of metacognition emerged in the 1970s, it required a significant amount of time for its current position in instructional strategies to be established. However, especially in the last 20 years, the number of studies on metacognitive listening awareness has been increasing.

Goh and Taib (2006) examined the effectiveness of MI in listening on their metacognitive awareness of listening for eight weeks. The participants were ten

young learners in an elementary school. After the training through listening exercises and discussions, learners displayed an awareness of the aspects that impact their listening and strategy usage throughout eight classes. After eight classes, participants stated that they developed self-confidence in listening activities and improved their problem-solving skills by gaining strategic knowledge. Ultimately, such a process-based approach to listening training helped weaker learners the most.

In a quasi-experimental study, Zeng (2007) investigated the impact of explicit and lesson-integrated metacognitive strategies instruction on listening achievement in a seven-week metacognitive strategy training with university students divided into control and experimental groups. Participants were sixty non-English major first year students. Treatment group took explicit training on listening strategies while activities were process-based listening activities. As data collection tools, the MALQ, a listening test and for only experimental group listening diaries were administered. Mendelsohn (1994) strategy instruction model was followed during the instruction. As a result of different listening achievement tests administered to both groups once a week, and after receiving instruction on metacognitive strategies, it was shown that learners in the experimental group had a much higher level of listening achievement than learners in the control group. .

In the study examining the effects of listening strategy training, Cross (2009) investigated Japanese learners' EFL listening success in a quasi-experimental study with an experimental-control group. Data was collected through a questionnaire related to learners' videotext watching habits and interviews related to the difficulties which learners faced while watching news videotexts. After applying explicit strategy instruction during ten weeks, the experimental and control groups' listening performance on the pretest and posttest did not differ significantly. However, both groups demonstrated development in their listening performance.

Additionally, Coşkun (2010) explored the influence that training in metacognitive strategies had on listening performance in a quasi-experimental study in Turkey. The participants were 40 beginner-level EFL learners. Over five weeks, the training group received instruction in metacognitive techniques using a standard English coursebook. The training adopted the explicit teaching of listening with a specific lesson model developed with the CALLA approach provided by O'Malley and Chamot (1990). The MALQ questionnaire, on the other hand, was explicitly used to

teach and discuss strategies with the learners. Given the findings, the treatment group's listening abilities were enhanced; as a result, it was suggested in the study that this approach should be included in L2 listening courses to help learners improve their listening abilities.

The researchers Vandergrift and Tafaghodtari (2010) inquired the impact of pedagogical sequence on the listening performance and metacognitive awareness of second-language learners in Canada. 106 French learners were divided into six intact classes and were assigned as experimental and control groups for the study. For three months, the experimental group was given treatment, while the control group did not have any instruction related to metacognitive awareness and followed the traditional listening model (pre-while-post listening). As well as a French proficiency test, The MALQ was adopted as a data collection tool. According to the results of the post-test, the members of the experimental group had a better listening performance than the members of the control group.

Zhang (2012) examined the correlation between listening strategy training and listening comprehension performance and the effect of strategy training on the use of strategies. The participants consisted of 56 intermediate learners at a university. The purpose of the research study was to enable learners to use listening strategies while raising awareness on strategy use of the learners. The study adopted a quasi-experimental research design with a treatment group. The treatment and control groups followed the same syllabus, coursebook, and tasks for fifteen weeks. The researchers designed a listening battery task which included a series of listening activities to teach in both groups. The experimental group also had training on listening strategy training explicitly. The strategy list based on the model of O'Malley and Chamot (1990) was presented to the learners. Data were collected through verbal report protocol checklists and listening task data in which learners rated the listening tasks and strategies that they used. According to the result of the study, the participants in the experimental group were more successful than the participants in the control group in terms of listening task performance. In addition, the experimental group was more eager to use strategies, although some learners in the control group stated that they also used strategies. Another important finding was that while learners were good at utilizing cognitive strategies such as bottom-up and top-down, they were poor at utilizing metacognitive strategies.

To scrutinize whether listening instruction in metacognitive approach is effective or not, variables such as Iranian EFL learners' English proficiency in speaking, metacognitive listening awareness, and listening performance were all examined by Rahimi and Katal (2013). The study compared the results of metacognitive listening training with those of implementing the traditional listening model for sixteen weeks. The participants, 55 university learners, had upper-intermediate English competence. Randomly chosen groups—an experimental group and a control group—were formed from the participants. The MALQ and TOEFL listening and speaking sections were both employed as data collection tools. Data collection tools were used as pretests and posttests to measure instructional outcomes of the intervention. The study's findings showed that speaking proficiency was much higher in the experimental group than in the control group after undergoing metacognitive listening training. The treatment group had results that were superior than those of the comparison group in terms of metacognitive awareness, and this difference was significant. However, despite the experimental group's greater listening skills than the control group, there was no discernible difference between the two groups.

Similarly, after providing 30 high-intermediate EFL listeners with an eight-week metacognitive pedagogical training in listening, Bozorgian (2014) examined whether or not the metacognitive pedagogical sequence approach affected the listeners' performance and metacognitive knowledge of EFL learners. The study adopted a pre-post-research design. The IELTS listening section and the MALQ were chosen as data collection tools. The outcomes indicated that metacognitive instruction boosted the participants' listening abilities. However, no significant improvements were discovered in the participants' overall metacognitive awareness of listening.

Goh and Hu (2014) examined the impact of metacognitive awareness on listening performance. The study was conducted with 113 Chinese ESL learners in a tertiary school in Singapore. The MALQ was used as a data collection tool for metacognitive awareness levels, while the IELTS listening proficiency test sample was selected to evaluate the listening performances of the participants. The results indicated that metacognitive strategy use and listening performance were highly correlated. Also, the findings indicated that learners who have higher performance in listening also the ones who have low anxiety.

Lin (2015) evaluated the impact of the metacognitive pedagogical cycle on EFL young learners' listening comprehension and metacognitive awareness over the course of three months in Taiwan. The researcher used a quasi-experimental methodology with 140 sixth-grade learners from an elementary school. Participants were assigned as an experimental group and a control group. Both groups utilized the same instructional materials and were instructed by the same instructor. However, metacognitive instruction was delivered to the experimental group. The MALQ and a Cambridge-developed listening test for young learners were selected as data-gathering instruments. After three months of instruction on metacognitive listening strategies, the results of the pre-tests and the post-tests revealed that there was no statistically significant difference in listening comprehension between the two groups. When compared to the control group, the experimental group demonstrated a statistically significant improvement in metacognitive listening awareness.

In a quasi-experimental study, Taguchi (2017) inspected possible outcomes of metacognitive intervention, if there are any, on Japanese learners' listening performance and self-efficacy. The intervention took place for eight weeks with 38 lower intermediate-level EFL learners. A TOEIC Listening section was selected to assess learners' listening performance, while their metacognitive awareness levels were measured by adopting the MALQ scale (Vandergrift et al., 2006). The self-efficacy scale by Kassem (2015) was adopted to measure self-efficacy. During the instruction, the researcher explicitly taught each strategy and modeled them in the participants' native language in the allocated time to teach strategies, which was 20 minutes each week. After the intervention, both groups showed an improvement in their listening test scores as well as their self-efficacy. It was discovered that self-efficacy and the application of metacognitive strategies were strongly associated. However, listening performance was found to be weakly correlated with the other two variables. The results suggested that since the participants' English proficiency levels were low-intermediate, they might not be benefited enough from metacognitive strategy instruction. In other words, metacognitive listening strategy instruction might be helpful for those who have higher proficiency levels.

Like this study, some studies used metacognitive pedagogical sequence (Vandergrift, 2004) to help listeners comprehend metacognitive lessons underpinning L2 listening tasks. These studies used pair and small-group activities. Thus, listeners had ample

time to discuss materials, challenges, and methods. For instance, Bozorgian and Alemdari (2018) examined how metacognitive training utilizing dialogic interaction activity affected the comprehension of multimedia listening and listening metacognitive awareness of advanced level EFL learners. The data were collected via the MALQ and multimedia listening tests having a quasi-experimental research design. 180 participants were nominated into three groups including one control group and two experimental groups. One group in experimental group (MIDI) received dialogic metacognitive teaching, while the other group in experimental groups (MI) received solely metacognitive instruction. MIDI followed the same lesson plan with peer-interaction exercises. The control group received multimedia listening comprehension instruction only and did not receive any instruction related to metacognition. The results showed that dialogic metacognitive instruction improved listening and multimedia listening comprehension.

Another study by Zarrabi (2016) explored the influence of explicit instruction of listening strategies on metacognitive awareness in terms of learner differences. The study was conducted with 135 participants who had an intermediate level of proficiency in English for ten weeks. By having a pre-post research design, the study adopted a proficiency test, the MALQ (Vandergrift et al., 2006), and Reid's (1995) perceptual learning styles questionnaire as data collection instruments. As for the implementation, the researcher followed a coursebook designed explicitly for listening strategies and besides presented a list of listening strategies based on O'Malley et al. (1989). The results suggested that explicit strategy training positively affected the metacognitive listening awareness of the participants.

2.4. Listening Anxiety

Horwitz, Horwitz, and Cope (1986) specified foreign language anxiety (FLA) as a combination of beliefs, attitudes, and self-perceptions generated by the distinctiveness of language learning in the classroom. Similarly, listening anxiety is considered a sub-category of foreign language anxiety.

It has been a long-standing practice that listening activities in the classroom often focus on the outcome, asking learners to report the details or meaning of the text they have heard. The fact that learners must show how much they have understood by answering a series of questions at the end of listening causes them to approach

listening skills with stress and anxiety. For instance, regarding the listening instruction models, in the text-oriented model, because accuracy is again essential, learners fall into listening anxiety. (Vandergrift & Goh, 2012).

Wang and MacIntyre (2021) suggest that by understanding the role that emotions play in L2 listening and their connection to metacognitive awareness, it is possible to acquire a greater understanding of listeners' self-perceptions about L2 processes and how they interpret listening activities and whether it influences the use of listening strategies or not. Several research studies have been published to prove and examine the prevalence of foreign language listening anxiety among learners. For example, Horwitz, Horwitz, and Cope (1986) found that foreign language listening anxiety is a common experience among college learners studying a foreign language.

For instance, Elkhafaifi (2005) carried out a research study to look at the connection between listening anxiety, and general foreign language learning anxiety. With 453 participants, the study measured learners' anxiety in Arabic classes. After collecting demographic information, the participants answered two questionnaires. One of the questionnaires was the Foreign Language Listening Anxiety Scale (FLLAS) (Kim,2000) to assess listening anxiety related to learn a foreign language and the other instrument was selected as the Foreign Language Classroom Anxiety Scale (FLCAS) (Horwitz et al., 1986) to measure the anxiety related to language classroom setting. According to the findings, learners who had higher degrees of fear associated with learning foreign languages also tended to have higher levels of fear associated with listening.

Regarding listening anxiety and strategy use, one of the first studies conducted in Turkey belonged to Gönen (2009). The researcher examined the possibility of a connection between the anxiety associated with FL listening and listening strategies in Turkey. To accomplish the research objective, sixty intermediate learners attended the research study. The quantitative results of the FL listening anxiety and FL strategy use scales indicated that when FL listening anxiety rises, learners utilize fewer FL listening techniques, and vice versa. The interviews with anxious and nonanxious learners also reinforced this result. The findings suggested that high-anxious learners typically do not employ effective listening skills and experience anxiety. The results also indicate that learners with low anxiety are unaware that listening skills can help them comprehend what is being said.

Bekleyen (2009) investigated the causes and consequences of listening anxiety in 71 Turkish ELT undergraduates. In addition, the researcher studied the anxiety coping mechanisms employed by the participants. An additional objective of the research was to establish whether there was a correlation among FL listening anxiety and foreign language anxiety. As data collecting instruments, the study utilized Foreign Language Listening Anxiety Scale (Kim, 2000) and the Foreign Language Classroom Anxiety Scale (FLCAS). On the other hand, fifty-four individuals were interviewed to acquire qualitative data. As ELT undergraduates with a greater degree of English competence, participants reported experiencing anxiety when listening in a foreign language. Moreover, the participants indicated that the reasons for their high listening anxiety might be resulted because of the lack of enough priority given in their previous learning. Additionally, they reported that being unable to recognize oral form of some structures let them to have higher anxiety in listening. According to the results, it was revealed that the most common solution to overcome FL listening anxiety was reported as practicing more.

Golchi (2012) investigated listening comprehension and listening strategy use of IELTS learners in Iran. 63 learners in two language schools participated in the study. IELTS listening test, Background Questionnaire (Lee, 1997), the FLLAS (Kim, 2000), Listening Comprehension Strategy Questionnaire (LCSQ) (Lee, 1997) were used to collect data. A negative correlation was found between listening anxiety and strategy use and also listening comprehension. Secondly, it was found that the participants who could control their anxiety at a low level were also successful at utilizing strategies. Especially, regarding the types of strategies which learners utilize, it was concluded that low-anxious learners utilize metacognitive strategies more than high anxious learners, while no significant difference was found related to cognitive and affective strategy use.

Berber (2016) examined the relationship between the employment of listening strategies, L2 listening anxiety and foreign language anxiety. The research also aimed to find out any potential differences between individuals with high anxiety and those with low anxiety regarding utilization of listening strategies. The participants were 79 ELT undergraduates from a Turkish state institution. The information was gathered using quantitative and qualitative data-gathering instruments. Initially, quantitative data were gathered using the Foreign Language Anxiety Scale (FLLAS)

developed by Kim (2000) and the Listening Comprehension Strategy Inventory (LCSI) (Gerçek, 2000), while qualitative data were collected adopting learning diaries and semi-structured interviews. Participants kept learning journals for five weeks following the training on effective writing. The results indicated that individuals with low anxiety engage a greater number of listening tactics than those with high anxiety. In addition, increasing technique utilization is positively correlated with decreased foreign listening anxiety. The study revealed that the same strategies might be taught to those with high anxiety after identifying the strategies that people with low anxiety employ.

Fathi, Derakhshan & Torabi (2020) investigated the impact of listening strategy instruction on EFL Iranian learners' listening anxiety and their self-efficacy. The study adopted a pre-post-test research design with experimental and control groups. The participants consisted of 52 learners and were divided into two intact groups. Data collection procedures were conducted utilizing Second Language Listening Self-Efficacy Questionnaire (SLLSQ) (Kassem, 2015), a listening section of IELTS and Foreign Language Listening Anxiety Scale (FLLAS). The findings of the study suggested that instruction in listening strategies resulted in a considerable improvement in the ability of learners to comprehend what they heard and a reduction in the anxiety that learners experienced when listening to an L2 material. The listening strategy treatment; however, did not significantly enhance the learners' L2 listening self-efficacy.

Recently in Turkey, Durmaz and Aşık (2022) examined the correlation between listening anxiety regarding the tolerance of ambiguity and metacognitive awareness of EFL learners. Adopting an explanatory research design, the researcher of the study aimed to identify relationships between three variables utilizing mixed methods research design. The required data was obtained from 374 participants who attended preparatory schools affiliated with various colleges. Participants with different English levels between A1 and C2 were selected, and 79 percent of the participants were women. As for data collection instruments, the FLLAS (Kim, 2000), The Second Language Tolerance of Ambiguity Scale (Ely,1989) and the MALQ (Vandergrift et al., 2006) were administered as well as semi-structured interviews conducted as the qualitative data collection instrument. The results suggested that listening anxiety and metacognitive awareness were not found to be significantly

correlated. Also, ambiguity tolerance was found to be negatively correlated with listening anxiety and metacognitive awareness. Regarding interviews, it was found that metacognitive awareness and anxiety somehow correlated in contrast to quantitative data findings. It was also suggested in the study that high-anxious learners have a tendency to utilize cognitive strategies rather than metacognitive strategies while low-anxious learners resort to metacognitive strategies more. Moreover, one of the sources of listening anxiety was shown to be exposure to a variety of accents in English.

2.5. Metacognitive Instruction and Listening Anxiety

Goh (2008) summarizes several favorable impacts of metacognitive strategy training on listening comprehension and asserts that the strategy training increases learners' self-efficacy and reduces their anxiety throughout the listening process. She also argues that the training is especially beneficial for weak listeners. In the literature, a few studies examined the effect of metacognitive instruction on listening over listening anxiety.

The effects of eight-week metacognitive training on listening anxiety, performance, and metacognitive awareness were examined by Movahed (2014). The participants consisted of sixty-five Iranian EFL beginners studying in Iran. In the study, which followed a process-based, quasi-experimental study methodology with experimental and control groups, the quantity of the participants were reduced to fifty-five after the implementation of the TOEFL listening test. With the aim of measuring the listening performance of the participants, the TOEFL listening section was adopted. Secondly, the MALQ (Vandergrift et al., 2006) was administered to assess learners' metacognitive awareness of listening. Thirdly, the FLLAS (Kim, 2000) was utilized for measuring listening anxiety. After eight weeks of strategy teaching based on the paradigm of Vandergrift and Tafaghodtari (2010), the experimental and control groups' listening performance was compared. To assess the efficacy of the intervention, through the MALQ and the FLLAS, the data were collected in the experimental group after the treatment. The findings of the post-tests suggested that the treatment group considerably surpassed the control group, confirming the beneficial effect of the metacognitive strategy instruction on the listening performance of the learners, metacognitive awareness, and listening anxiety.

In China, Xu and Huang (2018) investigated the correlation between listening test scores and metacognitive awareness of listening among 420 EFL learners. Using questionnaires such as the Listening Anxiety Scale (Elkhafaifi, 2005), the MALQ (Vandergrift et al., 2006), the Test Anxiety Scale (Cassady & Finch, 2015), and a listening section of College English Test in China, the researchers assessed the metacognitive awareness, listening anxiety, test anxiety, and listening ability of the individuals. It was discovered that the effects of listening anxiety and test anxiety on the listening test scores of learners with poor listening proficiency were mitigated by metacognitive awareness. However, this correlation was not observed in the group with the ones with higher proficiency. These results indicate that metacognitive awareness may be an important factor to consider when managing listening anxiety and test anxiety among EFL learners with low listening competency.

Mohamadpour, Talebinejad, and Tabatabaei (2019) have recently investigated how the instruction of metacognitive strategies reduces listening anxiety in Iranian EFL learners. EFL learners at the intermediate level made up the sample for this research, and 63 participants were split into four groups: two experimental and two control. Utilizing two variations of the strategy instruction framework, The Metacognitive Pedagogical Sequence (MPS; Vandergrift, 2004) and the Integrated Experiential Learning Task (Goh, 2010), the same teacher instructed the four groups of learners, and each group utilized the identical listening comprehension materials. One of the experimental groups received instruction based on the Integrated English Language Teaching (IELT) model, whereas the other experimental class received instruction based on the MPS approach. Control groups, on the other hand, only received traditional instruction of listening. As data collection tools, the listening section of PET and Foreign Language Listening Anxiety Scales were utilized as pre and posttests. The results indicated MPS was found to be more successful in reducing listening anxiety in language learners while both interventions (IELT and MPS) were found to be helpful in eliminating anxiety related to listening. Evidence from these studies suggests that being aware of and making use of metacognitive strategies might help alleviate listening anxiety, creating a more conducive environment for language acquisition.

3. METHODOLOGY

This section was designed to outline the methodological framework of the research. The research design and research questions, the research settings and participants of the study, and the instruments for data collection were presented in the respective order. The chapter concludes by presenting the data collection procedure and how the data were analyzed in the study.

3.1. Research Design

Considering the research objectives, it is vital to recall the research questions. This study investigates the effects of metacognitive listening instruction on a) the listening comprehension performances of L2 learners, b) the metacognitive listening awareness of L2 learners and c) the listening anxiety of L2 listeners. Regarding those variables, quantitative data collection processes were followed. Subsequently, regarding the study objective, which is to have a better understanding of the perceptions of L2 learners on metacognitive listening instruction, the related data were collected by qualitative data collection processes. In this sense, a mixed methods research design was adopted in this study.

When utilizing mixed methods, it is necessary to answer questions such as the order of data collection and the type of dominant data (Johnson & Onwuegbuzie, 2004). In this respect, since quantitative data were collected first and predominant, the mixed design in this research can be described as sequential explanatory (Creswell & Clark, 2011).

The study also followed a quasi-experimental research methodology among experimental research designs to examine cause-and-effect relationships among intact groups after the intervention (Dörnyei, 2007).

3.2. Research Questions

R. Q. 1. What is the impact of metacognitive instruction on L2 learners' listening performance?

1.1. Is there a statistically significant difference among groups before and after the intervention?

1.2. Is there a statistically significant difference within groups before and after the intervention?

R. Q. 2. What is the impact of metacognitive instruction on L2 learners' metacognitive awareness of listening?

1.1. Is there a statistically significant difference among groups before and after the intervention?

1.2. Is there a statistically significant difference within groups before and after the intervention?

R. Q. 3. What is the impact of metacognitive instruction on learners' foreign language listening anxiety?

R Q. 4. What are the learners' perceptions of metacognitive listening instruction related to listening performance, metacognitive awareness, and listening anxiety?

3.3. Participants and Setting

The study was administered at the preparatory school of a state university in Turkey with 43 B1-level learners. The learners enrolled in the school must take the English Proficiency Exam or provide a valid English proficiency certificate to document their English proficiency level. The minimum requirement to be transferred into departments is to possess a B1 level of English proficiency. If this is not the case, the learners must study at the preparatory school for two semesters. As a prerequisite for exemption, the learners are required to reach a yearly achievement by attending quizzes and, in total, four midterm exams. Midterm and quiz grades make up 50% of learners' total achievement scores, while the end-of-year test comprises the other 50%. The minimum acceptable score for the end-of-year test is fifty-five points. The learners must reach an overall score of 60 to be exempted from the Basic English School.

The purposive, convenient sampling technique among non-probability sampling techniques was chosen to determine the participants. It was purposive in that considering the suggestions of the study by Taguchi (2017), learners with higher English proficiency levels may benefit from metacognitive instruction of listening. Moreover, sampling was convenient because the participants were already easily accessible since the researcher was already teaching the same classes.

In September 2021, regarding the results of the placement exam that they took at the beginning of the semester, the participants obtained a B1 proficiency level. Following the test, the researcher conducted a NGL Outcome Placement Test (NGL Engage, n.d.) to ensure their level, and the results indicated the same CEFR level for each participant. As stated in the test score guidebook, a score between 26 and 32 on the placement test indicates an intermediate level. The experimental group's mean score was discovered as (M = 27.7), while the mean score of control group was (M=27.1). Two intact groups of individuals were divided into an experimental group (n = 22) and a control group (n = 21). Participants were given 18 hours of Basic English and 10 hours of Basic English Skills lessons each week. Ranging from 17 to 20 years old, the experimental group has 20 males and two females, while the control group has 19 males and two females.

The demographic information of the participants is presented in Table 1.

Table 1: Participants' Demographics

Groups	Gender	N	%
Experimental Group	Female	2	9,09
	Male	20	90,91
	Total	22	100,00
Control Group	Female	19	90,48
	Male	2	9,52
	Total	21	100,00

3.4. Data Collection Instruments

Four different tools were utilized to collect quantitative and qualitative data in the current study. The listening section of PET (Preliminary English Test) and the

MALQ (Vandergrift et al., 2006) were utilized as the quantitative data collection instruments. To answer to initial research question, "What is the impact of metacognitive instruction on L2 learners' listening performance?", the PET was used. In addition, the MALQ was used to answer "What is the impact of metacognitive instruction on L2 learners' metacognitive awareness of listening?" Thirdly, the FOLLAS-Foreign Language Listening Anxiety Scale (Polat & Erişti, 2018) was administered to seek answers to the third question regarding listening anxiety. Semi-structured interviews were chosen as qualitative data collection instrument for the final inquiry of the study about the perceptions of the learners regarding metacognitive instruction.

3.4.1. The PET Listening Test

As a pretest, posttest, and delayed posttest to measure the pre-treatment, post-treatment, and delayed post-treatment effects on participants' listening performance, only listening part of the English Preparatory Test (PET) developed by Cambridge TESOL was used in this study. The sample used was the 2020 sample, which is openly available on their website. The listening section consists of 4 parts and contains 25 questions in total. Part 1 has three pictures for each short question. Listeners are expected to recognize and mark the object mentioned in the listening text, and there are seven questions in total. Part 2 consists of 6 questions in total, and listeners must answer the questions by listening to short dialogs. Unlike the other parts where multiple choice questions are asked, part 3 is fill in the blanks activity, and after listening to the monologue, the listeners are expected to fill in the blanks with one or two words or the name of the place or the date. In the 4th and last part, listeners are expected to listen to a dialog and answer six multiple-choice questions. Each part was listened to twice. The listening test lasts 35 minutes in total, 6 minutes of which is transfer time. The Cronbach’s alpha reliability coefficient values for the pretest, posttests and delayed posttests were calculated and found to be .93, .88, and .84, respectively.

3.4.2. Metacognitive Awareness Listening Questionnaire

The Metacognitive Awareness Listening Questionnaire (the MALQ) (see Appendix 1) was adopted to measure the change in metacognitive awareness in listening. Vandergrift, Goh, Mareschal, and Tafaghodtari (2006) developed the questionnaire

to measure metacognitive awareness of L2 listening strategy use and to assess their awareness about themselves as listeners in a second language. It is a self-report instrument, and the items are lined on a 6-point Likert scale, 1 representing “strongly disagree” to 6 “strongly agree”. It includes 21 items and five factors. Vandergrift et al., (2006) listed these factors as “Problem-Solving, Planning and Evaluation, Mental Translation, Person Knowledge, and Directed Attention” (p.432).

The Problem-Solving factor includes items (1, 10, 14, 20, 21) related to strategies that listeners use to infer meaning when something is not understood for reconsidering the inferences. The Planning and Evaluation factor includes items (5, 7, 9, 13, 17, 19) related to strategies that listeners utilize to be ready for listening and assessing their own performance. The Mental Translation factor, on the other hand, includes a group of items (4, 11, 18) that are related to strategies which must be avoided, such as translating words to L1 to be a skilled listener. Similarly, the Person Knowledge factor (3, 8, 15 items) represents the perception of difficulty in L2 listening and related self-efficacy beliefs. Lastly, the Directed Attention factor includes items (2, 6, 12, 16) related to strategies that listeners use to cope with distraction while being able to handle the usage of the metacognitive strategies despite the difficulties during listening (Vandergrift et al., 2006).

In this study, the Turkish-translated version of the MALQ was adopted even though the participants have a B1 level of English proficiency to avoid any misconception during the implication of the scale. It was translated into Turkish, checked by an expert, and found reliable by a pilot study by Yetiş (2021). The translated version was adopted with the researcher’s permission (Appendix 2).

Despite the fact that the scale's reliability and validity have been demonstrated in several research studies (Vandergrift & Tafaghodtari, 2010; Cross, 2009; Graham & Macaro, 2008, Coşkun, 2010; Yılmaz, 2019; Yetiş, 2021), the Cronbach’s alpha reliability coefficient values were measured to ensure reliability and the values for the pretest, midtest, and posttests were found to be .71, .72 and .88, which were within the acceptable range (Pallant, 2011).

3.4.3. The Foreign Language Listening Anxiety Scale

Polat and Erişti (2018) developed the scale to assess learners' listening anxiety while participating in listening activities in the foreign language (see Appendix 3). The

scale is in Turkish, and it consists of a total of 18 items. The scale has subscales: *individual and external factors, control over the listening input, and perceived level of difficulty* (Polat & Erişti, 2018). Scoring of the scale is based on a Likert scale of five points, ranging from one to five, and indicates the extent to which the statement represents the participant. For the reliability of the scale's internal consistency, a Cronbach's alpha value of .90 was found to be appropriate. According to the findings of the EFA, three subscales together explain 53.20 percent of the overall variance. The item factor loading ranged from .50 to .84 of a standard unit. According to the findings of the CFA, three subscales are responsible for explaining 53.87% of the total variance, and the model provided a strong fit. The Cronbach's alpha reliability coefficient values for the pretest and posttests were found to be .86 and .92, respectively.

3.4.4. Semi-Structured Interviews

According to Schmidt (2004), it is vital to choose the techniques considering the study setting, goals, and the approach adopted. Moreover, person factors and availability in terms of time can change the techniques. The study's objective was to investigate learner perceptions of metacognitive listening instruction in comparison to traditional listening instruction. Considering the aim of the study, which is to support quantitative findings, semi-structured interviews were utilized for the qualitative data collection (see Appendix 4).

Seven volunteers from the experimental group participated in the interviews. The interviews lasted three days and performed in Turkish. Semi-structured interviews included five questions which the participants are supposed to answer in face-to-face meetings. Each interview lasted 10-15 minutes to complete.

3.5. Data Collection Procedures

Related section will cover the data gathering procedures for the research study in chronological order.

The study took place at a preparatory school of a state university during the fall term of the 2021-2022 academic year. After obtaining research ethics, and approval from the committee, the participants were provided with information regarding the scope of the study. The consent form clearly stated that participation in the study was

entirely voluntary, and anyone might choose to discontinue their involvement at any time. They were also informed that no personal information would be requested or used during or after the study, and the data collected would be used solely for the purpose of the study. Consent form is given in Appendix 5.

The institute's participants were two intact groups, which perfectly served the study's aim. The information about which group was the experimental or control group was not given to the learners to not affect the reliability of the research. However, the participants were given the information that they would participate in an investigation which was related to learning English listening skills. Firstly, the Cambridge Preliminary English Test (PET) was utilized as a pre-test, post-test, and delayed post-test to observe the effect of metacognitive instruction on the participants' listening comprehension performance. Delayed post-test of PET was executed three weeks after the post tests to measure the sustainability of the possible effect on the learners' listening performance.

Secondly, to measure the impact of metacognitive instruction on the participants' metacognitive awareness of listening, the Metacognitive Awareness Listening Questionnaire (the MALQ) was utilized as a pretest, middle test, and posttest. Thirdly, The FOLLAS (Foreign Language Listening Anxiety Scale) was also administered as a pretest and posttest to investigate changes in the participants' listening anxiety levels before and after metacognitive instruction.

Lastly, the aim of the fourth question, which constitutes the qualitative part of this study, was to develop understanding into the participants' thoughts and perceptions towards this treatment as a result of the metacognitive instruction. After the instruction process, within three days, seven members of the experimental group participated in semi-structured interviews. Voluntary participants were invited to fill out the consent form, although they had already given their consent at the beginning of the study. These interviews were audio-recorded with semi-structured questions and guided by the researcher. Each interview was conducted in the interviewees' mother tongue (Turkish), and each interview lasted between 10 and 15 minutes.

3.5.1. The Experimental Group

During the eight-week metacognitive listening instruction (Vandergrift and Goh, 2012), participants in both the experimental group and control groups listened to

different listening texts (see Appendix 6 for the listening tasks) at intermediate English proficiency levels each week, utilizing five stages of the pedagogical sequence. The listening lessons in both groups were executed extensively during two lesson hours (90 min). After following the weekly lesson plan, generally at the end of the week, the listening activities were utilized. The listening tracks were selected in line with the general theme of the week's units, considering the students' interests.

A listening diary format (see Appendix 7) were given to the participants to be used in each lesson, on which they wrote the date, topic, and code name, which they would decide and use on every page. In this paper, they were asked to keep a listening diary for each intervention under five sections: my predictions, first listening, second listening, third listening and reflection sections.

On the first stage *My predictions*, the researcher presented the listening topic and asked the learners to discuss the words and contexts they might encounter as a class and write down their predictions in the predictions section of the worksheet. This procedure was performed as a class for the first two weeks to familiarize the participants with the process. For the next two weeks, all brainstorming was done in pairs. In the remaining four weeks, this process continued individually. On this stage, it was aimed to activate background knowledge of the listeners by considering the genre of the listening and predicting the key knowledge which they need to seek while listening. Learners try to plan how to take notes of the anticipated knowledge.

On the *first listening/first verification stage*, learners were asked to mark the information they guessed correctly on their pages and to note down what they had learned in the first listening session before moving on to the second listening session, where learners shared their guesses and new learning with their friends. If there was any missing or controversial information or any points to listen carefully, they were requested to discuss how they could capture it better while listening again with their peer. On this stage, learners monitor and assessed their first performance in prediction stage. The aim of this stage is to utilize *monitoring and evaluation* as metacognitive pedagogical processes. Before moving to second listening, learners were also asked to discuss any points to be careful about while listening and these peer discussions were utilized to promote *planning.*

On the *second listening/second verification stage,* learners took new notes, such as prospective points that they may have missed on the initial listening, and verified the knowledge they had had. Learners again discussed as a whole class to have a better comprehension of the listening text. On this stage, they were encouraged to share how they had overcome comprehension problems in the first listening. To overcome potential comprehension problems, learners tried to share their strategies to reach the correct information with their peers. On this stage, learners monitored what they had achieved and couldn't have, and they discussed how to solve these problems. Students take part in a class discussion to check that their understanding, evaluate how effective their listening strategies and problem-solving attempts have been, and verify that they have understood the material.

On *the third listening stage,* listening scripts were handed out for the exact listening text again, and learners went over listening text by reading it by the transcription to recognize linguistic features.

Lastly, in *the reflection section* beginning with the first week, the participants were expected to write down what they thought they had succeeded in, what they had trouble with and their plans for the subsequent listening.

After class discussions, peer discussions were adopted in the first half of the instruction, considering peer interaction's positive effect, as suggested in a study by Cross (2010). He found that peer interaction, as a means of the pedagogical cycle developed by Vandergrift (2007), was successful in developing the learners' metacognitive awareness. Moreover, he stated that to raise learners' metacognitive awareness, "sharing, selecting and reflecting on listening strategies" is crucial (p.285).

3.5.2. The Control Group

During the eight-week training, the control group listened to the exact listening tracks as the experimental group and had the same number of extra listening lessons. Although the lesson procedure and the listening content were the same as the experimental group every week, the listening diary and in-class procedures lacked the components of a metacognitive pedagogical sequence.

The participants in the control group also kept a learning diary and took notes during listening (see Appendix 8). For instance, a format was created for the control group

to take notes for only three listening sessions. In the control group, the first part of the prediction activity and the peer discussion parts were not included. Discussions on the strategy use, peer discussion, and reflection were not included in any of the lessons in the control group. Figure 1 displays the data collection procedure and the study design for both groups.

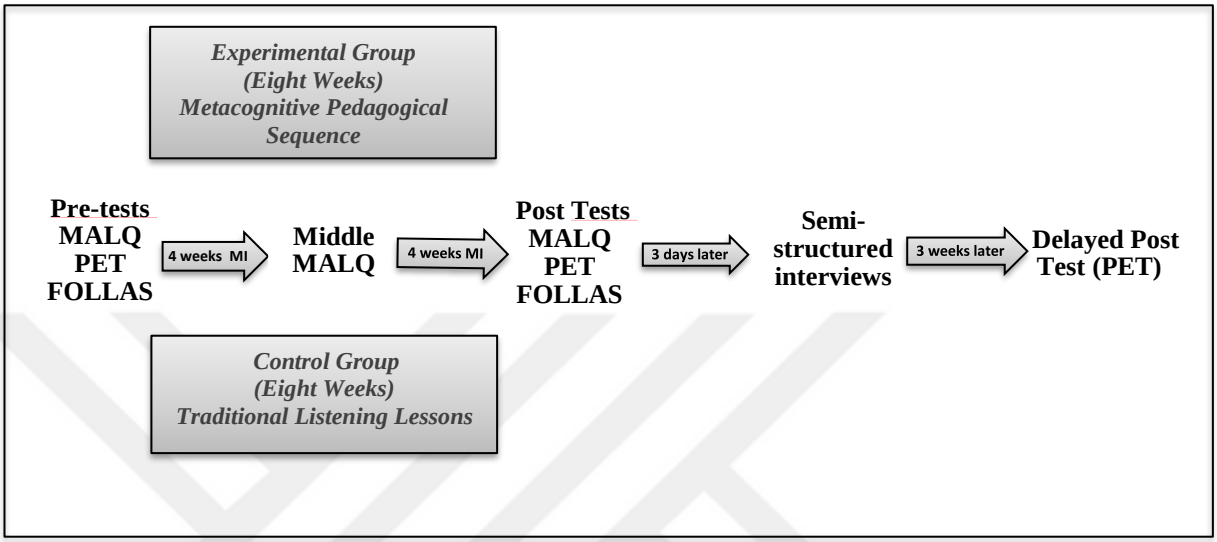

Figure 1: The Design of the Study

3.6. The Data Analysis

After the data collection, the following procedures were administered to analyze quantitative and qualitative data. The details of the procedure will be explained in this section.

3.6.1. The Quantitative Data Analysis

The quantitative data collected through Cambridge Listening Test, the MALQ, and the Listening Anxiety Scale were analyzed using the Statistical Package for Social Sciences (SPSS 25.0). All data were transferred to the software, including the pretest-posttest and delayed post-test on listening performance, metacognitive awareness of listening, and the pretest-posttest numerical data on listening anxiety. After creating a codebook, a data cleaning procedure was conducted to eliminate missing data in datasets. Reliability analyses were conducted for each scale to check their Cronbach's alpha value. After conducting preliminary descriptive statistics for each data set, the normality tests were conducted to check whether the data were in normal distribution**.** Due to the small sample size, the Shapiro-Wilk test was

performed. Initially, the normal distribution of the pretest-posttest and delayed post-test data on listening performance, the pretest, middle test and post-test data on the metacognitive awareness listening, and the pretest and post-test data on listening anxiety of the experimental group and control group were analyzed. All the values of Shapiro-Wilk tests for the scales were above 0.05 ($p > 0.05$). Therefore, the Shapiro-Wilk test did not show any evidence of non-normality. For this reason, parametric tests were conducted. The significance level was set at .05 for all statistical tests.

3.6.1.1. Listening Performance

Considering the initial research question "What is the impact of metacognitive listening instruction on L2 learners' listening performance?"

- *An independent sample T-Test* was conducted to compare the experimental and control groups' pretest, posttest, and delayed posttest listening scores.
- *A repeated measures ANOVA test* was run to analyze the mean differences in three-time points within groups.

3.6.1.2. The Metacognitive Awareness Listening Questionnaire

Considering the second research question, "What is the impact of metacognitive instruction on L2 learners' metacognitive awareness of listening? As Vandergrift, Goh, Mareschal, and Tafaghodtari (2006) suggested, on the codebook, the reverse coding of six different items from the questionnaire was completed. After scoring;

- *An Independent sample T-Test* was performed for the experimental and control group's pretest and post-test MALQ scores.
- *A repeated measures ANOVA test* was implemented to analyze the mean differences in three-time points within groups.

3.6.1.3. Listening Anxiety

Considering the third research question, "What is the impact of metacognitive instruction on L2 learners' listening anxiety?

- *An Independent sample T-Test* was employed for the experimental and control groups' pretest and post-test listening anxiety mean scores.
- *Paired sample t-tests* were utilized to measure any variance in the pre-post mean scores within groups.

3.6.2. The Qualitative Data Analysis

Considering the study's final research question related to the participants' perceptions regarding metacognitive instruction, seven learners in the intervention group participated voluntarily in semi-structured interviews. After the data collection procedure by voice recording, transcription and coding procedures were followed. Since the data were collected in Turkish, the translation accuracy was checked by a native speaker and a researcher's colleague. While coding, pseudonyms suggested by the participants for themselves were employed to protect their confidentiality. Data were split into themes and subthemes. Qualitative data analysis steps (Strauss & Corbin, 2008) were followed. First, initial thoughts were noted, and initial codes were produced. Then the relevant data were collected under the created themes, and new themes that fit them were sought in the data, and the second reader reviewed the themes by looking at the relationships between them. Themes and subthemes were re-developed based on the second rater's suggestions and observations.

3.7. Conclusion

In order to outline the research's methodological framework, the study's design was presented in the current chapter. Subsequently, the participants and the setting of the study were reported. Then, data gathering methods for intact groups and data collection tools were described, respectively. Lastly, the chapter concluded with data analysis procedures regarding quantitative and qualitative data.

4. FINDINGS

This chapter presents the findings in two sections: quantitative and qualitative. The first section describes the data findings connected to the first three study topics in chronological sequence. The second section presents the findings of the fourth research question of the study.

4.1. Quantitative findings

4.1.1. RQ1. What is the impact of metacognitive instruction on L2 learners' listening performance?

After analyzing the descriptive statistics on the Cambridge PET Listening pretest-posttest and delayed post-test, an *Independent Sample T-Test* was performed to compare the pretests and posttests of the experimental and the control group to measure the effect of metacognitive instruction among groups. Then *a repeated measures ANOVA* test was performed to compare the effect of metacognitive listening instruction intervention on listening performance across three-time points (pretest-posttest and delayed post-test listening scores) within groups. Table 2 displays the descriptive statistics of all data related to listening tests.

Table 2: Descriptive Statistics of the Pretest, Posttest, and Delayed Posttest

Group		N	Mean	Std. Deviation	Min	Max	Median
Experimental	Pretest	22	58,3636	19,66032	24,00	92,00	56,0000
	Posttest	22	73,6364	16,26725	44,00	96,00	74,0000
	Delayed Posttest	22	71,8182	17,56522	36,00	92,00	78,0000
Control	Pretest	21	58,2857	19,33169	24,00	96,00	56,0000
	Posttest	21	64,7619	21,52651	28,00	96,00	72,0000
	Delayed Posttest	21	62,8571	19,64252	24,00	96,00	68,0000

4.1.1.1. Is there a statistically significant difference among groups before and after the intervention?

To establish that both groups have similar listening performance before the intervention, the independent samples *t*-test was conducted to compare pretest listening scores of the groups. The results are exhibited in Table 3.

Table 3: PET Pre-test Findings

Test	Group	N	Mean	SD	t	df	p	Mean Difference
PET	**Experimental**	22	58,3636	19,66032	0,013	41	0,989	,07792
	Control	21	58,2857	19,33169				

As shown in Table 3, the PET listening pre-test mean score of the experimental group (M = 58.3636, SD = 19.66032) was the same compared to the mean score of the control group (*M* = 58.2857, *SD* =19.33169). In terms of listening performance regarding pretest scores, no statistically significant difference ($t(41) = 0,013$, $p>0,05$) was found.

Table 4: PET Post-test Findings

Test	Group	N	Mean	SD	t	df	p	Mean Difference
PET	**Experimental**	22	73,6363	16,26724	1,529	41	0,134	8,87445
	Control	21	64,7619	21,52650				

After the intervention, according to the post-test results presented in Table 4, In terms of mean scores, the experimental group (M=73.6363, SD=16.26724) exceeded the control group (M=64.7619, SD=21.52650). Regarding the listening performance post-test scores of both groups, no statistically significant difference ($t(41) = 1,529$, $p>0,05$) was found, either.

Table 5: PET Delayed Post-test Findings

Test	Group	N	Mean	SD	t	df	p	Mean Difference
PET	Experimental	22	71,8182	17,56522	1,578	41	0,122	8,96104
	Control	21	62,8571	19,64252				

Independent sample T-Test findings for PET Listening Delayed Post-Test showed that the experimental group (*M*=71.8182, *SD*=17.56522) had a higher mean score than the control group (*M*=62.8571, *SD*=19.64252). Nevertheless, the difference was not found as a statistically significant one ($t(41) = 1.578$, $p>0.05$).

These findings indicated that the metacognitive instruction did not result in a statistically significant improvement in the listening performance of the experimental group in comparison to the traditional instruction of listening.

4.1.1.2. Is there a statistically significant difference within groups before and after the intervention?

To analyze whether there is a change within groups in three-time points, *ANOVA with repeated measures test* was run both for the experimental and the control group. In this section, the descriptive statistics and *repeated-measures ANOVA* findings of the firstly experimental group and then the control group will be presented.

The Experimental Group

Table 6: Descriptive Statistics of the Experimental Group across Three-time Points

Test	N	Mean	SD
Pre-Listening Scores	22	58,3636	19,66032
Post-Listening Scores	22	73,6364	16,26725
Delayed Post-Test Scores	22	71,8182	17,56522

Listening scores for the experimental group indicated improvement in listening performance in terms of mean scores from pre-listening (*M* = 58.36, *SD* = 19.66) to post-listening (*M* = 73,63, *SD* = 16,26) and a slight decrease in delayed post-test (*M*=71,81, *SD*=17,56) compared to the post-test results, as it is presented in Table 6.

Because the data were in a normal distribution, the Mauchly test was conducted to assess another assumption, which is the validity of the sphericity assumption underlying repeated measures analysis of variance (ANOVA).

Table 7: Mauchly's Test of Sphericity on Experimental Group Listening Scores

Within Subjects Effect	Mauchly's W	Approx. Chi-Square	df	Sig.	Epsilon[b]		
					Greenhouse-Geisser	Huynh-Feldt	Lower-bound
Listening Experimental Group	,399	18,353	2	,000	,625	,645	,500

As is seen in Table 7, Mauchly's Test of Sphericity is statistically significant

($p < .05$), Mauchly's test indicated that the assumption of sphericity was violated, $\chi2(2) = 18.353$, $p = .000$. Since the estimated epsilon (ε) is less than 0.75, the Greenhouse-Geisser correction is utilized. ($\hat{\varepsilon} = 0.625$, $\hat{\varepsilon} < .75$)

Table 8: Tests of Within-Subjects Effects for the Experimental Group

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
time	**Sphericity Assumed**	3062,303	2	1531,152	28,450	,000	,575
	Greenhouse-Geisser	3062,303	1,250	2450,664	28,450	,000	,575
	Huynh-Feldt	3062,303	1,291	2372,692	28,450	,000	,575
	Lower-bound	3062,303	1,000	3062,303	28,450	,000	,575
Error(time)	**Sphericity Assumed**	2260,364	42	53,818			
	Greenhouse-Geisser	2260,364	26,241	86,138			
	Huynh-Feldt	2260,364	27,104	83,397			
	Lower-bound	2260,364	21,000	107,636			

Since the assumption of sphericity was violated with repeated-measures ANOVA, Greenhouse-Geisser correction is employed. According to the findings, the mean scores of the listening test of the experimental group were statistically significantly different between three-time points with a large effect size. *(F(1.250, 26,241) = 28.450, p = .000, r = ,57)* (Cohen, 1988)

Table 9: Pairwise Comparisons for the Experimental Group in Three-Time Points

					95% Confidence Interval for Difference[b]	
(I) time	**(J) time**	**Mean Difference (I-J)**	**Std. Error**	**Sig.[b]**	**Lower Bound**	**Upper Bound**
1	2	-15,273*	2,781	,000	-22,506	-8,039
	3	-13,455*	2,377	,000	-19,637	-7,272
2	1	15,273*	2,781	,000	8,039	22,506
	3	1,818	1,139	,376	-1,145	4,781
3	1	13,455*	2,377	,000	7,272	19,637
	2	-1,818	1,139	,376	-4,781	1,145

Based on estimated marginal means

*. The mean difference is significant at the ,05 level.

b. Adjustment for multiple comparisons: Bonferroni.

Post hoc analysis with a Bonferroni adjustment indicated that the mean score of listening scores for the post-intervention condition was statistically significantly different and higher than the mean score of listening for the experimental group in the pre-intervention condition (15,27 (95% CI, 8,03 to 22,50), p = .000).

Similarly, the mean difference between the listening scores in the delayed-posttest and the mean score of listening for pre-intervention was statistically significantly different and higher (13,45 (95% CI, 7,27 to 19,63), p = .000). However, there was no statistically significant difference from the mean score of listening scores for post-

intervention to the mean score of delayed posttest listening time point (1,81 (95% CI, -1,14 to 4,78), p = .376).

The Control Group

Table 10: Descriptive Statistics of the Control Group across Three-time Points

Test	N	Mean	SD
Pre-Listening Scores	21	58,2857	19,33169
Post-Listening Scores	21	64,7619	21,52651
Delayed Posttest Scores	21	62,8571	19,64252

The mean scores for the control group showed a difference from pre-listening (M = 58.28, SD = 19.33) to post-listening (M = 64.76, SD = 21.52) and a slight decrease in delayed post-test (M=62.85, SD=19.64) compared to the post-test results, as it is presented in Table 10.

The Mauchly test was conducted to assess the validity of the sphericity assumption underlying repeated measures analysis of variance (ANOVA).

Table 11: Mauchly's Test of Sphericity on Control Group Listening Scores

Within Subjects Effect	Mauchly's W	Approx. Chi-Square	df	Sig.	Epsilon[b]		
					Greenhouse-Geisser	Huynh-Feldt	Lower-bound
Listening Control	,467	14,477	2	,001	,652	,679	,500

Table 11 displays the results of Mauchly's Test of Sphericity, which is statistically significant (p < .05). Mauchly's test indicated that the assumption of sphericity was violated, $\chi 2(2) = 14.477$, p = .001. Since the estimated epsilon (ε) is less than 0.75, the Greenhouse-Geisser correction is used ($\hat{\varepsilon}$ = 0.652, $\hat{\varepsilon}$ < .75).

Table 12: Tests Of Within-Subjects Effects For The Control Group

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
time	Sphericity Assumed	465,270	2	232,635	3,584	,037	,152
	Greenhouse-Geisser	465,270	1,304	356,684	3,584	,059	,152
	Huynh-Feldt	465,270	1,358	342,554	3,584	,057	,152
	Lower-bound	465,270	1,000	465,270	3,584	,073	,152
Error(time)	Sphericity Assumed	2596,063	40	64,902			
	Greenhouse-Geisser	2596,063	26,089	99,509			
	Huynh-Feldt	2596,063	27,165	95,567			
	Lower-bound	2596,063	20,000	129,803			

Since the assumption of sphericity was violated with repeated-measures ANOVA, Greenhouse-Geisser correction was used. The mean scores of the listening test of the control group showed no statistically significant difference between the three-time points *(F(1.304, 26.089)* = 3.584, *p = .59, r = .15)* (Cohen, 1988)

Table 13: Pairwise Comparisons for the Control Group in Three-time Points

(I) time	(J) time	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence Interval for Difference[b]	
					Lower Bound	Upper Bound
1	2	-6,476	3,129	,155	-14,650	1,698
	3	-4,571	2,594	,280	-11,347	2,204
2	1	6,476	3,129	,155	-1,698	14,650
	3	1,905	1,424	,588	-1,816	5,625
3	1	4,571	2,594	,280	-2,204	11,347
	2	-1,905	1,424	,588	-5,625	1,816

Based on estimated marginal means
*. The mean difference is significant at the 05 level.
b. Adjustment for multiple comparisons: Bonferroni.

As it is shown in Table 13, Post hoc analysis with a Bonferroni adjustment indicated that the mean difference for the post-intervention condition (time point 2) and pre-

intervention (time point 1) condition for the control group showed no statistically significant difference (6.47 (95% CI, -1.69 to 14.65), p = .155). Likewise, the mean difference between the delayed post-test condition (time point3) and pre-intervention condition (time point 1) was not statistically significant (4.57 (95% CI, -2.20 to 11.35), p = .28). Finally, the mean difference between delayed post-test condition (time point 3) and post-intervention condition (time point 2) was not statistically significant, either (-1,90 (95% CI, -5.62 to 1.82), p = .59). These findings show that the experimental group improved in terms of listening performance, while the control group showed no significant improvement.

4.1.2. RQ2. What is the impact of metacognitive instruction on L2 learners' metacognitive awareness of listening?

After analyzing the descriptive statistics of first-middle and final scores of the Metacognitive Awareness Listening Questionnaire (MALQ), an *Independent Sample T-Test* was run to compare the first tests, midtests, and final test scores of the experimental and the control group. Then *a repeated measures ANOVA* test was performed to compare the effect of metacognitive instruction on learners' listening metacognitive awareness across three-time points for each group (first, middle and final). Initially, Table 14 presents the descriptive statistics of the MALQ scores between the experimental and the control group.

Table 14: Descriptive Statistics of the First-Test, Mid-Test, and Final-Test

Group		N	Mean	Std. Deviation	Min	Max
Experimental	FirstMALQ	22	3,9502	0,39637	2,95	4,48
	MidMALQ	22	4,3593	0,33759	3,67	5,00
	FinalMALQ	22	4,7035	0,30683	4,19	5,19
Control	FirstMALQ	21	4,2290	0,56837	2,67	5,05
	MidMALQ	21	4,3311	0,45463	3,71	5,14
	FinalMALQ	21	3,5737	0,42923	2,90	4,57

4.1.2.1. Is there a statistically significant difference among groups before and after the intervention?

Since the data were in a normal distribution (p > 0,5), firstly, the *Independent T-Test* was conducted to identify changes in MALQ first-test mean scores between groups, if there are any.

Table 15: MALQ First-Test Findings

Scale	Group	N	Mean	SD	T	df	p	Mean Difference
MALQ	Experimental	22	3,9502	0,39637	-1,873	41	0,068	-0,27881
	Control	21	4,2290	0,56837				

** = sig<0,01, * = sig<0,05

According to Table 15, the experimental group's mean MALQ score (M = 3,9502, SD = 0,39637) differs slightly from the control group's (M = 4,2290, SD = 0,56837). No statistically significant difference (t(41) = -1,873, p > 0,05) between the groups could be observed with regard to metacognitive listening awareness for pretest. Thus, the groups were considered to have the same level of metacognitive awareness before the treatment.

The mean differences for MALQ middle test, which was obtained during the metacognitive treatment, between the experimental and the control group were presented in Table 16.

Table 16: MALQ Mid-Test Findings

Scale	Group	N	Mean	SD	T	df	p	Mean Difference
MALQ	Experimental	22	4,3593	0,33759	0,232	41	0,818	0,02824
	Control	21	4,3311	0,45463				

** = sig<0,01, * = sig<0,05

As shown in Table 16, the MALQ mean score of the experimental group (*M* = 4,3593, *SD* =0,33759) shows a slight difference compared to the mean score of the control group (*M* = 4,3311, *SD* = 0,45463). There was no statistically significant difference (*t*(41) = -0,232, *p*>0,05) between the groups in terms of listening metacognitive awareness. Thus, the groups were considered to have the same level of metacognitive awareness during the treatment.

To analyze the mean differences for the MALQ final test between the experimental group and the control group after the metacognitive treatment, again, the Independent T-Test was administered. Table 17 shows the findings related to final test of MALQ.

Table 17: MALQ Final-Test Findings

Scale	Group	N	Mean	SD	t	df	p	Mean Difference
MALQ	Experimental	22	4,7035	0,30683	9,965	41	0,000**	1,12977
	Control	21	3,5737	0,42923				

** = sig<0,01, * = sig<0,05

As shown in the table above, the MALQ mean score of the experimental group (M = 4,7035, SD =0,30683) is higher than the control group's mean score (*M* = 3,5737, *SD* = 0,42923). Regarding listening metacognitive awareness among groups, this mean difference is found to be statistically significant ($t(41) = 9,965$, $p<0.000$).

This result leads to the conclusion that after the metacognitive intervention, the experimental group reported higher metacognitive awareness in L2 listening than the control group, and the difference among means was found to be statistically significant.

4.1.2.2. Is there a statistically significant difference within groups before and after the intervention?

To analyze the changes in MALQ scores within groups in three-time points (first-MALQ, mid-MALQ, and final-MALQ), *ANOVA with repeated measures was run for both* the experimental and the control group. In this section, the descriptive statistics and *repeated-measures ANOVA* findings of the experimental and control groups will be presented separately.

Table 18: Descriptive Statistics of the Experimental Group

Test	N	Mean	SD
First-MALQ Scores	22	3,9502	0,39637
Mid-MALQ Scores	22	4,3593	0,33759
Final-MALQ Scores	22	4,7035	0,30683

MALQ mean scores for the experimental group showed a constant increase from the first MALQ (*M* = 3,95, *SD* = 0,396) to the middle MALQ (*M* = 4,359, *SD* = 0,337) and the final test (*M* = 4,70, *SD*=0,306) as it is presented in Table 18. Since all data related to MALQ were in a normal distribution, assessing the validity of the

sphericity assumption underlying repeated measures analysis of variance (ANOVA) is crucial. For this reason, the Mauchly test was conducted.

Table 19: Mauchly's Test of Sphericity On Experimental Group MALQ Scores

					Epsilon[b]		
Within Subjects Effect	**Mauchly's W**	**Approx. Chi-Square**	**df**	**Sig.**	Greenhouse-Geisser	Huynh-Feldt	**Lower-bound**
MALQ/ 1-2-3	,869	2,808	2	,246	,884	,959	,500

As it is seen in Table 19, since the value of Mauchly's Test of Sphericity is not statistically significant ($p > .05$), the result indicates that the assumption of sphericity was not violated, $\chi 2(2) = 2{,}808$, $p = 0{,}246$. Thus, the sphericity assumption was met by the data.

Table 20: Tests of Within-Subjects Effects for the Experimental Group

Source		**Type III Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**	**Partial Eta Squared**
time	Sphericity Assumed	6,257	2	3,128	42,024	,000	,667
	Greenhouse-Geisser	6,257	1,768	3,538	42,024	,000	,667
	Huynh-Feldt	6,257	1,919	3,260	42,024	,000	,667
	Lower-bound	6,257	1,000	6,257	42,024	,000	,667
Error(time)	Sphericity Assumed	3,127	42	,074			
	Greenhouse-Geisser	3,127	37,136	,084			
	Huynh-Feldt	3,127	40,298	,078			
	Lower-bound	3,127	21,000	,149			

A repeated measures ANOVA showed that the mean scores of MALQ of the experimental group statistically differed significantly between time points with a large effect size. *(F(2, 42)* = 42,024, *p = .000, r = 0,66)* (Cohen, 1988)

A pairwise comparison test was carried out to check where this difference occurred across time points (first MALQ, middle MALQ, final MALQ) and whether the mean differences between two-time points are significant.

Table 21: Pairwise Comparisons For The Experimental Group

(I) time	(J) time	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence Interval for Difference[b]	
					Lower Bound	Upper Bound
1	2	-0,409*	0,089	0,000	-0,641	-0,177
	3	-0,753*	0,090	0,000	-0,986	-0,520
2	1	0,409*	0,089	0,000	0,177	0,641
	3	-0,344*	0,066	0,000	-0,515	-0,173
3	1	0,753*	0,090	0,000	0,520	0,986
	2	0,344*	0,066	0,000	0,173	0,515

Based on estimated marginal means
*. The mean difference is significant at the ,05 level.
b. Adjustment for multiple comparisons: Bonferroni.

As it is shown in Table 21, Post hoc analysis with a Bonferroni adjustment indicated that the mean score of middle MALQ (timepoint 2) was statistically different and higher than the first MALQ (timepoint 1) (0,40 (95% CI, 0,17 to 0,64), p = 0,000). It showed a statistically significant difference. Also, the mean score of the final MALQ in the post-intervention condition (timepoint 3) was statistically significantly different and higher than the mean score of the first MALQ for the experimental group in the pre-intervention condition (timepoint 1) (0,75 (95% CI, 0,52 to 0,98), p = .000). Similarly, the mean difference between the final MALQ score (timepoint 3) and the middle MALQ score (time point 2) was statistically significantly different. The final MALQ score was higher (3,34 (95% CI, 0,17 to 0,51), p = .000).

The findings show a gradual statistically significant increase in the mean scores of the MALQ for the experimental group, indicating that metacognitive intervention successfully increased the learners' metacognitive listening awareness.

The Control Group

Table 22: Descriptive Statistics of the Control Group

Test	N	Mean	SD
First-MALQ Scores	21	4,2290	0,56837
Mid-MALQ Scores	21	4,3311	0,45463
Final-MALQ Scores	21	3,5737	0,42923

MALQ mean scores for the control group showed a slight increase from the first MALQ (*M* = 4,22, *SD* = 0,568) to the middle MALQ (*M* = 4,33, *SD* = 0,454) and a decrease from the middle MALQ to the final MALQ (*M* = 3,57, *SD*=0,429) as it is presented in Table 22. Since the normality assumption was fulfilled, another assumption for ANOVA was assessed. For this reason, the Mauchly test was conducted to assess the validity of the sphericity assumption underlying repeated measures analysis of variance (ANOVA).

Table 23: Mauchly's Test of Sphericity on Control Group MALQ Scores

					Epsilon[b]		
Within Subjects Effect	**Mauchly's W**	**Approx. Chi-Square**	**df**	**Sig.**	Greenhouse-Geisser	Huynh-Feldt	**Lower-bound**
MALQ/ 1-2-3	,862	2,819	2	,244	,879	,957	,500

As it is seen in Table 23, since the value of Mauchly's Test of Sphericity is not statistically significant ($p > .05$), the result indicates that the assumption of sphericity was not violated, $\chi 2(2) = 2,819$, $p = 0,244$. Thus, the sphericity assumption was met by the data.

Table 24: Tests Of Within-Subjects Effects for the Control Group

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
time	Sphericity Assumed	7,094	2	3,547	30,986	,000	,608
	Greenhouse-Geisser	7,094	1,758	4,036	30,986	,000	,608
	Huynh-Feldt	7,094	1,914	3,707	30,986	,000	,608
	Lower-bound	7,094	1,000	7,094	30,986	,000	,608
Error(time)	Sphericity Assumed	4,579	40	,114			
	Greenhouse-Geisser	4,579	35,153	,130			
	Huynh-Feldt	4,579	38,274	,120			
	Lower-bound	4,579	20,000	,229			

a. Computed using alpha = ,05

According to the findings, sphrecity was not violated and the mean scores of the MALQ of the control group were statistically significantly different between three-time points with a large effect size. *(F(2, 40)* = 30,986, *p = .000, r = 0,608)* (Cohen, 1988) A pairwise comparison test was performed to check where this difference occurred across time points (first MALQ, middle MALQ, final MALQ) and whether the mean differences between two-time points are significant.

Table 25: Pairwise Comparisons for the Control Group in Three-time Points

(I) time	(J) time	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence Interval for Difference[b]	
					Lower Bound	Upper Bound
1	2	-,102	,084	,712	-,321	,117
	3	,655*	,118	,000	,348	,963
2	1	,102	,084	,712	-,117	,321
	3	,757*	,109	,000	,473	1,042
3	1	-,655*	,118	,000	-,963	-,348
	2	-,757*	,109	,000	-1,042	-,473

Based on estimated marginal means
*. The mean difference is significant at the ,05 level.
b. Adjustment for multiple comparisons: Bonferroni.

Post hoc analysis with a Bonferroni adjustment indicated that the mean score of middle MALQ (timepoint 2) was slightly higher but not statistically different than the first MALQ (timepoint 1) (0,10 (95% CI, -0,11 to 0,32), p>0,000). In contrast, the mean score of the final MALQ (timepoint 3) was lower than the mean score of the first MALQ for the control group (timepoint 1), and this difference was statistically significant (-0,65 (95% CI, -0,96 to -0,34), p = .000). Similarly, the mean difference between the final MALQ score (timepoint3) and the middle MALQ score (time point 2) was statistically significantly different, and the final MALQ score was lower than the middle MALQ score (-0,75 (95% CI, -1,04 to -0,47), p = .000).

The findings show a gradual statistically significant decrease in the mean scores of the MALQ for the control group between the final MALQ (timepoint 3) and the middle MALQ (timepoint 2), and the first MALQ (timepoint 1).

4.1.3. R.Q.3. What is the impact of metacognitive instruction on learners' foreign language listening anxiety?

After analyzing the descriptive statistics of the Foreign Language Listening Anxiety Scale (FOLLAS) for the pretest and posttest, the *Independent Sample T-Test* was run to compare the pretests and posttest of the experimental and the control group. To compare within-group changes, the *Paired Sample T-Test* was run. The descriptive statistics on the data obtained from the foreign language listening anxiety scale are presented in Table 26.

Table 26: Descriptive Statistics of the Pretest and Posttest Scores of FOLLAS

Group		N	Mean	Std. Deviation	Min	Max	Median
Experimental	Pretest	22	3,0682	0,55075	2.06	4.11	3.0833
	Posttest	22	1,9773	0,39939	1.28	2.72	2.0556
Control	Pretest	21	2,8360	0,74690	1.72	4.17	2.8889
	Posttest	21	2,6323	0,59537	1.67	3.94	2.6111

The Results of Pre-Test Scores by the Experimental and the Control Group

The independent samples t-test was conducted to determine the difference between the experimental and the control group's pretest scores on the English foreign language listening anxiety scale. The results are displayed in Table 27.

Table 27: FOLLAS Pre-Test Findings

	Group	N	Mean	SD	T	df	p	Mean Difference	d
FOLLAS	Experimental	22	3.0682	0.55075	1,164	41	0,251	0,23220	0.353
	Control	21	2.8360	0.74690					

The pre-test mean of the experimental group (*M* = 3,0682, *SD*=0,55075) for English foreign language listening anxiety was higher than the control group's mean score (*M* =2,8360, *SD* = 0,74690). However, T-test results showed that the difference was not statistically significant ($t(41) = 1.164$, $p>0.05$) between the groups in terms of foreign language listening anxiety with a small effect size (*d*= **0.353**) as it is presented in Table 27.

The Results of Post-Test Scores by the Experimental and the Control Group

To investigate the impact of the metacognitive instruction on listening anxiety in comparison to traditional listening instruction, *the independent samples t-test* was administered for FOLLAS post-test scores of the groups. Table 28 displays related findings.

Table 28: FOLLAS Post-test Findings

Test	Group	N	Mean	SD	t	df	P	Mean Difference
FOLLAS	Experimental	22	1,9773	0,39939	-4,255	41	0,000	-0,65500
	Control	21	2,6323	0,59537				

According to the post-test results, the mean score of the experimental group (*M* = 1,9773, *SD*=0,39939) for foreign language listening anxiety showed a difference compared to the mean score of the control group (*M* = 2,6323, *SD* = 0,59537). T-test results showed that the difference was statistically significant (*t*(41) = -4,255, *p* < 0.05) with a large effect size (*d* = 1.29) between the groups, as it is presented in Table 28.

The Paired Sample T-test

The *Paired Sample T-Test* was performed to analyze the changes in mean scores within groups between foreign language listening anxiety pretests and posttests.

Table 29: Paired Sample T-test Findings of FOLLAS for both groups

					95% Confidence Interval of the Difference				
		Mean	**Std. Deviation**	**Std. Error Mean**	**Lower**	**Upper**	**t**	**df**	**Sig. (2-tailed)**
Pair 1	Experimental Group-Posttest-Pretest of FOLLAS	-1,09091	0,53550	0,11417	-1,32833	-,85348	-9,555	21	,000
Pair 2	Control Group Posttest – Pretest of FOLLAS	-0,20370	0,62196	0,13572	-,48682	,07941	-1,501	20	,149

As it is presented in Table 29, there was a significant difference in the pretest and posttest mean scores of the experimental group (pair 1) (M = -1,09, SD = 0,53) before and after the intervention conditions (*t*(21) = -9,55, *p* = 0,00) -1,09 (95% CI, -1,32 to -0,85), *p* = .000) with a huge effect size (*d* = 1.8). However, the difference in the pretest and posttest mean scores of the control group (M= -0,20, SD=0,62) was not found to be statistically significant -0,20 (95% CI, -0,48 to -0,79), *p* = .149). Mean differences in both groups are in favor of decreasing the levels of foreign language listening anxiety, however; the mean decrease in the experimental group between initial and final conditions was found to be statistically significant. Thus,

with 95% confidence, it can be concluded that there is a statistically significant difference between FOLLAS mean scores before and after the experiment only in the experimental group. In light of the findings, for experimental group, metacognitive intervention was found to be successful in lowering listening anxiety levels.

4.2. Qualitative Findings

R.Q.4. What are the learners' perceptions of metacognitive listening instruction related to listening performance, metacognitive awareness, and listening anxiety?

Semi-structured interviews were conducted with seven participants to respond to the fourth research question. After the data analysis, three themes emerged with their sub-themes. The qualitative data were presented as of the following themes.

1. **Increased listening performance**
   In classroom activities
   In extensive listening
2. **Increased Metacognitive awareness**
   Adopting different metacognitive strategies: planning, selective, directed attention.
   Decrease in mental translation
3. **Decreased listening anxiety**
   Anxiety related to facing an unfamiliar accent
   Anxiety related to missing a keyword
   Anxiety related to lack of repetition

4.2.1. Increased Listening Performance

When the excerpts below are analyzed, it will be seen that the participants indicated some changes in their listening performance. Participants attributed the changes in their listening performance to different reasons after the instruction. Some participants said that they observed a change in their listening performance on their note-taking skills, while others said that their performance improved after the instruction because their anxiety and prejudices decreased. While some learners attributed the change in their

performance to learning how to listen, others emphasized how they used this experience when listening outside the classroom.

> This type of learning was complicated for me compared to my friends at first. However, I think my note-taking skills and listening performance improved, and I can see this in my diary when I compare the first week and the last. (Sarah)

> I think my performance has increased and improved. I started to strategize while taking notes, I took more extended notes, and then I started to shorten them, which became more effective. Also, during the last weeks, I was able to see an exact match between my notes and the transcriptions. I do not stop listening when I miss something, and I try to hold on thanks to the strategies that I use. (Carl)

The participants also stated that their perception toward listening skill has changed, and this and getting awareness caused an improvement in their listening performance.

> I used to struggle to understand what was being said, but now I am able to extract more meaning and make connections between what I am listening to and what I already know. (Adam)

> I have learned to pay closer attention to what I'm listening to, take notes, and ask questions to help me understand better. I feel like these strategies have helped me become a more effective listener, and I am more confident that I can continue improving with more practice. (Matt)

One of the participants stated that considering the grades he took from the listening parts in the exams, it looked like he did not improve his performance. On the contrary, in the following except he clarifies the issue.

> I mean, improvement in my performance did not happen by judging my exam grades, I always made the same score in the listening exams we did, but I think it improved. Because at least it is a relief now, I listen more comfortably, which affects me in terms of performance. When I think about my general approach to listening lessons and the decrease in my fear, I think this has improved my performance. (Joe)

Vandergrift and Goh (2012) suggest that after implementing and learning listening strategies, learners may gain awareness of the processes they actually utilize and this helps improving their metacognitive awareness and may apply these in different contexts in their life. Participants similarly mentioned that they realized how the effects of the metacognitive instruction expanded toward their personal life while they were exposed to English via various sources such as movies and songs or exposed to natural speech outside.

> I now have a greater understanding of what I'm listening. For example, now I can say that even when I watch TV series without subtitles, I can understand more clearly when there is even an accent that I am not used to. (Joe)

> When I am on the ferry, there is always someone in front of me or behind me, usually speaking English, and I usually understand what they say. For example, if there is a tour guide, I can easily understand what he says. I can now easily understand the conversations from the context. In the past, when I encountered a phrase I didn't recognize, I would obsess about the word, and I would not continue to listen, thinking that I would not understand the rest. (Matt)

4.2.2. Enhanced Metacognitive Awareness

According to the interview analyses, the participants improved their knowledge of the fundamental processes of metacognitive listening instruction, such as evaluating monitoring, planning and problem-solving, as well as the basic knowledge of person knowledge, task knowledge, and strategy use.

Participants stated that, generally, it was the first time they were actively and consciously *evaluating* and *reflecting* on their performances. These extracts also showed that they improved in *person knowledge* about themselves beyond listening instruction. The participants stated these in the following excerpts:

> Systematically taking notes and evaluating ourselves with the reflection section at the end of these notes and correcting myself every time with my own mistakes has been very effective. (Rachel)

> I think the essential part was thinking about what I did and how I did it, what I achieved and what I could have done better. Each time I thought about what I did or didn't do in the previous week and thought about what I should pay more attention to this week. This is how I was able to observe my own development. (Sarah)

One of the participants made it very clear that he also started to *reflect* on his performance in other skills and also *beyond the classroom*, stating that;

> Usually, when we do a listening activity, I do not reflect on what I did not do or why I did not do it because my only goal is to answer the questions in the activity or in the exam. I started to be self-critical, not only for listening but also for reading, and I started to evaluate myself overall. I also realized that the more I did reflection, the better I could criticize myself. (Matt)

Participants stated that they started using *planning strategies* during and after the instruction, such as for exams.

> I used to listen straight and answer the questions with whatever I could think of. I would fail if there were a part I could not think of or remember. In the last exam, I used what we learned. Now I think in advance about what might be asked. I started taking notes about what might be necessary. (David)

> I was trying to note down every word, which I did poorly. In general, I was acting result-oriented because I saw the questions in the book. Other than that, I was trying to take note of all the words. But now I just choose which words and which information might be helpful to me, and I choose the things to take notes accordingly. (Matt)

One of the participants specifically stated that he now can use *prediction strategies* to understand better and guess the topic of the listening. He stated that he started to use this strategy while listening to podcasts, either.

> I've learned a lot of helpful strategies for improving my listening skills. I now know how to make predictions by looking at the clues such as pictures, titles, and the listening context. I frequently listen to podcasts.

> For example, they give clues about the topic in the introduction speech. I pay attention to these. (Carl)

Participants also expressed that they gained awareness of *selective attention* and *directed attention strategies*. Participants' responses on this issue are presented in excerpts below:

> I was trying to do or write down everything I heard, and I could not keep up. I was losing track, trying to keep up. But now I can perceive knowledge or the main idea in my head and write down what I should do, like a recipe, time, etc., before or while listening. Then I can choose and plan what to focus on and take notes. (Joe)

> In the verification stages, I realized that I was taking notes on unimportant things. Instead of understanding the main idea, I was getting stuck on words I didn't know because before the questions were in front of me, I was focusing on the result. (Sarah)

Two of the participants specifically stated that the amount of *mental translation* they have done decreased, and when one of the participants resorts to translating any words or phrases, he stated that he does it purposefully.

> I benefit from taking notes, but sometimes I still translate. I have reduced it, but I can't say that I have entirely stopped translating in my head. I sometimes translate complex sentences. Of course, this sometimes causes me to miss some essential things. (David)

> In the first weeks, I translated the listening text word by word and tried to write everything down. Now I know that I'm losing time when I translate something. I attempt to comprehend the main idea. (Sarah)

The qualitative analysis results supported the claim that metacognitive instruction on listening enhanced the metacognitive awareness of the participants: their strategy use, reflection abilities, and the tendency to have mental translation, proving the results of quantitative data analysis regarding metacognitive awareness levels.

4.2.3. Decrease in Listening Anxiety

Throughout the interviews, the learners expressed that they had experienced anxiety about listening for various reasons. In a study investigating the sources of listening

anxiety, Vogely (1998) found that the listening text's lack of repetition, the difficulty level, and the listening text's different characteristics, such as the accent and speech rate, were the fundamental sources of listening anxiety. Similarly, the anxiety sources that the participants put forward can be summarized as the fear of facing a problematic listening text, encountering an unfamiliar accent, and not understanding a vital section or a specific vocabulary. The following outputs present the learners' own statements explaining both the source of the anxiety and how the reduction occurred in their anxiety levels after the intervention.

Joe, for instance, stated that his listening anxiety resulted from the *fear of missing an important phrase,* and he overcame that fear thanks to the practices in the verification stages and benefiting the notes he had taken.

> My fear of missing something during listening is over because, during those weeks, listening was not result-oriented. The verification stages reduced my anxiety at the beginning. Because then I knew I had missed an important phrase and needed to look for it in the next one. (Joe)

On the other hand, two participants emphasized that they feared encountering unfamiliar accents and, therefore, were unable to focus on listening entirely.

> When I heard accents while watching the series, my eyes would shift to the subtitles the fear of not understanding. There were different accents in some of the listening records, and I got used to them. I do not think there will be anything I cannot understand as I take notes effectively. (Carl)

> I was afraid of encountering different accents in listening. However, I got used to it because we listened to different accents and topics. I also listen to people speaking English on the ferry and can understand them more easily. (Rachel)

Similar to the results of the study by Vogely (1998), a participant stated he did not like listening activities before and that the *lack of repetition* and missing words while listening in the classroom might be the source of his anxiety.

> I would not say I like it because it is straightforward to miss words, especially if there is only one listening. If it is repeated once, then I think I may have problems. (Carl)

Two participants expressed fears of failing to listen and *falling behind their peers*. However, these fears were overcome when they had discussions and cooperated.

> Because we had discussions as pairs, I felt more confident, and I didn't feel like in a competition. I think this instruction also developed our speaking skills too. We listened more and discussed more. That's why it would be better if all our skill lessons continued to be executed like this. (Rachel)

> During the planning and verification stages, we predicted and discussed with our friends. I thought I was further behind my friends. I struggled more than they did, but I realized that getting caught up in these thoughts was unnecessary. I can say that I am more optimistic about myself now. (Sarah)

> I felt frustrated and discouraged when I couldn't understand anything in a listening lesson, but my friends could. It wasn't important how many accurate answers we had during these lessons. We shared our knowledge in discussions, and I learned from my friends. Now I feel more confident and motivated to keep trying and improve. (Adam)

These excerpts show that learners experienced listening anxiety due to different reasons; however, metacognitive listening instruction helped them to reduce their anxiety.

4.2.4. Perceptions about the Use of Metacognitive Listening Instruction

The participants stated they were pleased to be instructed through metacognitive listening instruction for different reasons and compared it with traditional listening instruction.

Two participants stated that they liked metacognitive listening instruction because it allows learners to *regulate their own performance and abilities*.

> You question yourself, and you say, okay, next time I'll do this. Yes, here's where I've written incompletely, I can improve this, and when I question performance, I think I'm improving. I would say the main point is to question yourself, and it improves us. (Joe)

> This style is definitely much better. Because in this way, the learners can see their own mistakes and make a share from these mistakes. The learners observe themselves. The learner can question and improve himself in this listening type, so I think it is much better. (Matt)

Finally, one of the participants compared traditional listening training to metacognitive listening instruction summarizing the whole procedure.

> I think normal listening activities are simple and boring compared to this instruction because we focus on a particular thing. The book asks us questions, we read the questions, and we try to find the answer to that questions while listening. We do not pay attention elsewhere. But in the technique we use, we take notes of the essential parts not to forget them and we use signs to show relationships among them. We decide for ourselves what is important and what is not. We develop our own unique tactics and signs by trial and error. But this was not the case in the previous listening activities in the classroom. We were only focusing on one thing: answering the question in front of us correctly. So I think our new technique is more useful in real life. (Adam)

By considering the excerpts from the interview with the participants, one may draw this conclusion that as preferred because of various reasons, metacognitive listening instruction was found beneficial by the learners.

5. DISCUSSION

The primary objective of this study was to explore the impact of metacognitive instruction on the listening comprehension performance of L2 listeners, their metacognitive awareness of listening, and the degree to which learners experienced listening anxiety.

In order to accomplish the goals of the study, both quantitative and qualitative data were compiled and analyzed as part of the research process. The findings were discussed in detail in the chapter preceding the current one. The data collection and analysis were carried out using the Cambridge PET (B1) listening pretest, posttest, and delayed test; the MALQ (Vandergrift et al., 2006); the FOLLAS (Polat & Erişti, 2018) and semi-structured interviews. This section presents the discussion of the findings in relation the literature.

5.1. Regarding the Findings on Listening Performance over Metacognitive Instruction

The listening comprehension performance of L2 listeners was evaluated using the Cambridge PET (B1) listening pretest, posttest, and delayed posttest immediately following and throughout the eight-week metacognitive instruction to evaluate the effect of the instruction on the listening performance of the learners. An independent sample T-test and a repeated measures analysis of variance were employed to analyze the findings. These tests were used to compare the groups and the test scores of each group separately. According to the findings, there was not a statistically significant difference in the L2 listening performance of the participants across groups after the metacognitive training was given. On the other hand, it was revealed that within groups, participants of both the experimental group and the control group increased their listening performance as measured by the mean score on the listening test. In addition, according to the results of the analysis of variance (ANOVA), the only changes in listening mean scores found to be statistically significant were those that occurred in the experimental group.

The results of this study related to the first question are consistent with some studies' findings. Çevikbaş (2016), for example, studied the influence of activities developed with metacognitive methods on the listening performance of learners. Twenty-two university learners at the pre-intermediate level participated in the study. Metacognitive listening instruction was offered in Turkish for seven weeks. After the instruction ended, in terms of listening performance, no statistically significant difference was discovered between the treatment and control groups, whereas the mean scores indicated the opposite.

Another study discussed in the literature review section was also in line with the findings of this study. Cross (2009) studied how teaching metacognitive strategies affected Japanese learners' EFL listening performance in a quasi-experimental study involving an experimental-control group. After the ten-week strategy training, there was no statistically significant difference between the experimental group's and the control group's listening achievement on the pre-and post-tests, despite the use of explicit strategy instruction. The two groups, however, improved their listening skills over time. Moreover, other studies (Lin, 2015; Rahimi & Katal, 2013) showed that metacognitive instruction improved learners' listening performance; however, similar to the finding of this study, this improvement was not found to be significant.

In contrast to the finding of the study, in several studies (Goh & Taib, 2006; Vandergrift & Tafaghodtari, 2010; Yetiş, 2021; Yılmaz, 2019; Zeng, 2007), it was found that metacognitive instruction was effective in increasing learners' listening performance compared to the traditional listening instruction.

Moreover, the rationale behind why metacognitive instruction did not result in a statistically significant difference between groups regarding listening performance might be explained by the time restriction of the study since the instruction took eight weeks. According to the literature, some factors might affect the outcome of using metacognitive strategies. For instance, the results could be affected by the English skill level of the learners, their age, their initial motivation and the length of training. (Mareschal, 2007; Vandergrift, Goh, Mareschal & Tafaghodtari, 2006). Regarding the length of the training in the experimental groups, it might be concluded that longer metacognitive listening training might result in a statistically significant difference in listening performance in comparison to the control group.

Another issue could be that the control group students were more motivated to learn and more attentive to extensive listening activities than the experimental group students. Moreover, another reason why metacognitive instruction did not result in a statistically significant difference between group might be explained by extensive listening. Both groups used listening materials and practiced extensive listening in addition to the coursebook. As a natural consequence, the control group also improved considerably in terms of listening performance. This could explain why there was not a significant variance in listening performance between the two groups.

5.2. Regarding the Findings on Metacognitive Listening Awareness over Metacognitive Instruction

Regarding the first and middle MALQ data analyses, the levels of metacognitive awareness in each group were compared, and there was found to be no statistically significant distinction between them. Since the variance both in the first MALQ and middle MALQ was found insignificant, both groups were considered at the same level of metacognitive awareness before and during the intervention. However, when the findings related to the final MALQ were examined, it was found that after the metacognitive intervention, the experimental group reported greater metacognitive awareness in L2 listening than the control group, and this difference was statistically significant. When the changes in mean scores within groups were examined via a repeated measures ANOVA test, it was concluded that the mean scores of the experimental group within three-time points changed, and the difference in mean scores from the first MALQ to the final MALQ was again found to be statistically significant. On the other hand, according to the findings of a repeated measures ANOVA test, it can be seen that the changes in MALQ mean scores for the control group were not statistically significant from first MALQ (M=4,22) to middle MALQ (M=4,33); however, the mean changes in final MALQ (M=3,57) to middle MALQ (M=4,33) and final MALQ (M= 3,57) to first MALQ (M= 4,22) were found statistically significant. The mean changes were in favor of decreasing in mean score.

The findings show a gradual statistically significant increase in the mean scores of MALQ for the experimental group, indicating that metacognitive intervention successfully increased the learners' metacognitive listening awareness.

Metacognitive listening awareness of the experimental group improved after the treatment, and this result corresponds to prior research conducted in a variety of settings. and study sample (Bozorgian, 2014; Goh & Hu, 2013; Rahimi & Katal, 2013). Rahimi and Katal (2013) and Movahed (2014) similarly found that in the Iranian context, metacognitive listening instruction following a pedagogical sequence was found to be highly effective in raising learners' metacognitive awareness. For instance, Rahimi and Katal (2013) followed a quasi-experimental research design with 52 upper-intermediate level EFL learners for sixteen weeks. Metacognitive instruction compared to the traditional teaching of listening and its effects on metacognitive awareness and listening and speaking proficiency were measured by having pre-post research design. Similar to the findings of this study, the experimental group surpassed the control group in listening performance, although the difference was not significant. However, the experimental group did better than the control group in gaining metacognitive listening awareness, and the difference was statistically significant.

The findings of this investigation contradict the findings of Bozorgian's study (2014). Bozorgian (2014) investigated the effectiveness of metacognitive listening instruction with pedagogical sequence on metacognitive awareness and listening performance. The participants were thirty high-intermediate EFL learners who were given metacognitive listening instruction through a metacognitive pedagogical sequence like the current study. The results suggested that metacognitive listening instruction improved the listening performance of the participants. However, no substantial changes in the individuals' metacognitive awareness of listening were observed.

Similarly, Yetiş (2021) investigated the effects of a process-oriented metacognitive listening instruction that lasted eight weeks on the metacognitive awareness and listening comprehension of 37 B2-level ELT undergraduates. According to the findings of the quantitative data, the experimental group showed a statistically significant difference in their listening performance in the posttest at the medium effect level; however, the increase that was observed at the end of the study in their general listening performance was statistically significant at the large effect level. The results of the analysis of metacognitive listening awareness in terms of the MALQ sub-dimensions showed that it was moderate but not significant.

It is essential to emphasize that while some research studies (Coşkun, 2010; Cross, 2009; Zarrabi, 2016) in the literature examined the effect of explicit metacognitive instruction. However, in this study, implicit metacognitive training was given to the experimental group. The participants were not exposed to any listening comprehension questions, and they figured the strategies out by peer learning and teacher guidance. The participants in the experimental group also stated that they gained awareness when they had discussions with their peers. Also, they stated that discussion on the stages and sharing knowledge improved their self-confidence and decreased their anxiety, either. Cross (2009) found that discussions during the stages helped learners to raise awareness of metacognitive listening strategies and also helped the participants to be more self-regulated since they were learning in a social learning environment. The collaborative learning environment and the nature of the metacognitive pedagogical sequence might have helped learners improve their awareness.

5.3. Regarding the Findings on Listening Anxiety over Metacognitive Instruction

The study aimed to investigate how metacognitive listening instruction affected learners' listening anxiety. For this purpose, the FOLLAS was adopted as a data collection tool and utilized as a pre-test and post-test. An Independent sample t-test was run to assess the levels of listening anxiety before and after the intervention across groups. Pair Sample T-test was employed in order to assess the changes in listening anxiety within groups.

In regard to the results of t-tests conducted on pair samples, the difference in the pretest and posttest mean scores (M = -1,09, SD = 0,53) of the experimental group (pair 1) was found to be statistically significant ($t(21) = -9,55$, $p = 0,00$) -1,09 (95% CI, -1,32 to -0,85), $p = .000$) with large effect size ($d = 1.8$). However, for the control group (pair 2), the mean difference (M= -0,20, SD=0,62) was not shown to be significant based on statistical analysis -0,20 (95% CI, -0,48 to -0,79), $p = .149$).

Regarding the findings of this study, it can be concluded that both groups show a decrease in foreign language listening anxiety. However, the experimental group showed a statistically significant decrease comparing pretest and posttests. Thus, with 95% confidence, the FOLLAS mean scores before and after the experiment

differ statistically only in the experimental group. Metacognitive instruction was found to help reduce experimental group learners' anxiety levels significantly.

Similarly, the results obtained from this research are validated by prior investigations in the literature. For instance, Movahed (2014) conducted a very similar study to the current one in the Iranian context. The author examined how metacognitive strategy training affected EFL beginners' listening, metacognitive awareness, and listening anxiety. Similar to the current study, by having a process-based, quasi-experimental research design, metacognitive listening instruction endured for eight weeks. The results suggested that similar to the current study, post-test scores for the experimental group were significantly higher than those for the control group. Furthermore, metacognitive instruction enhanced students' awareness of their own metacognition, and also it decreased their listening anxiety.

Moreover, Fathi, Derakhshan, and Torabi (2020) examined the effect of listening strategy training on listening anxiety and listening self-efficacy of Iranian EFL learners. The findings revealed that instruction in listening skills led to a significant improvement in the ability of language learners to comprehend what they heard and a reduction in the anxiety they experienced when listening to L2 content.

Xu and Huang (2018) investigated the effect of listening metacognitive awareness on listening anxiety and test anxiety with 402 Chinese participants. The data were collected by self-report questionnaires. The results indicated that metacognitive awareness in listening skill does indeed have a direct and significant positive impact on listening test results and reducing listening anxiety.

The reason why listening anxiety decreased in both groups might be explained by the extra listening lesson hours where the learners were exposed to different topics and genres of several listening tasks. Both groups were exposed to the same amount of listening tasks, and as Bekleyen (2009) noted learners tend to experience less anxiety when they practice listening more. However, according to the results within groups, it was found that the experimental group showed more decrease in listening anxiety, which can be explained by the effects of metacognitive listening instruction. In addition to practicing listening more, the experimental group's participants have enhanced their metacognitive awareness of listening as well as learning practical usage of listening strategies. Moreover, another reason might be explained that

listening lessons during the intervention were not result-oriented and success-oriented, where they did not see comprehension questions before they listened to the texts. Overall, metacognitive listening instruction through a pedagogical sequence reduced the participants' listening anxiety.

5.4. Regarding The Findings of Semi-Structured Interviews

The qualitative data findings regarding the participants' perceptions showed that metacognitive listening instruction enabled learners to have better listening performance in English. Some participants stated that their performance has changed and improved because of the fact that they have learned "how to listen to." In addition, the participants reported that their perspective of listening ability has altered, which, along with gaining awareness, has improved their listening performance.

Although learners in their interview excerpts mostly talk about how they become better in cognitive strategies such as note-taking, the excerpts also showed that they started to think about their own cognitive processes, which is an indicator of metacognition. Interview analyses showed that participants grasped the essential processes of metacognitive listening instruction utilizing metacognitive strategies such as evaluation, planning and selective/directed attention. Moreover, qualitative analysis supported the hypothesis that metacognitive instruction on listening improved participants' strategy use, such as reflection skills, and mental translation, confirming quantitative data analysis results. Berber and Gönen (2017) found that learners who suffer from high levels of anxiety often resort to using cognitive strategies while low anxious learners tend to utilize metacognitive strategies more. The study did not intend to measure the effect of metacognitive instruction on different learner types. Thus, a future study could investigate into the influence of strategy differentiation in metacognitive instruction (MI) on learners' anxiety levels.

According to the qualitative data analysis, the findings showed that the participants expressed that participants' anxiety sources included a complex listening text, an unfamiliar accent, and not understanding a key piece or phrase. Durmaz and Aşık (2022) also found that different accents in English were considered a listening anxiety source.

Moreover, participants stated the product-oriented nature of traditional listening lessons caused them to have listening anxiety since there is a possibility of being evaluated and the outcome of this would be feeling incompetent. According to Vandergrift and Goh (2012), that is one of the reasons why learners who are anxious about being evaluated cannot operate their working memory while they are dealing with listening input.

Some participants, as it can be seen in the excerpts, stated that having different listening texts in terms of genre and topic, and also practicing more than usual have improved their listening comprehension performance. As Vogely (1997) noted and Bekleyen (2009) restated, learners experience less anxiety when they engage in listening more. Moreover, as Flowerdew and Miller (2005) discussed before, listening has been considered as naturally occurring skill in language classrooms, and until recent years, the only advice given to the learners was limited to do extensive listening to improve their listening skill such as watching TV series and news without subtitles or listening English songs. Although, as learners stated, practicing more than usual was beneficial during the study, learners also reported that they gained metacognitive listening awareness.

Overall, the first research question aimed to scruitinize the impact of metacognitive listening instruction on the listening performance of the learners in comparison to traditional listening instruction. The results showed that at the end of the study, no statistically significant difference could be found between experimental and control groups regarding listening performance. However, both the findings gathered from repeated measures ANOVA in the listening scores and the data from the interviews have proved that metacognitive listening instruction with the pedagogical sequence was efficient in raising the listening performance of the treatment group.

Secondly, considering the second research question, which is whether metacognitive instruction has an effect on the metacognitive awareness of the learners, both quantitative and qualitative findings showed that the experimental group who had metacognitive instruction during eight weeks gained metacognitive awareness of listening and improved in utilizing listening strategies.

Thirdly, regarding the third research question, whose aim is to measure the effect of metacognitive instruction in lowering the listening anxiety of the learners, the

quantitative findings indicated that after MI, a statistically significant decrease in listening anxiety levels of the participants was observed. The qualitative findings also yielded the results of the quantitative findings suggesting that learners' perception toward listening has changed in a positive way. Moreover, the findings of qualitative data suggested that participants had different types of listening anxiety, and through instruction, participants have learned how to overcome listening anxiety by utilizing strategies and being aware of their cognitive processes.

6. CONCLUSION

This section was designed to outline the conclusion of the study.After presenting overall conclusion of the study, limitations and recommendations for future research studies were presented in the respective order. The chapter concludes by presenting useful implications of the study.

6.1. Overall Conclusion of the Study

The primary objective of this study was to investigate the impact of an eight-week process-based metacognitive listening training through metacognitive pedagogical sequence on the listening performance, metacognitive awareness, and listening anxiety of 43 Turkish B1 foreign language listeners at a public university. In this study, a quasi-experimental design with a pretest-posttest and experimental-control group was employed. Two intact classes were selected randomly as the experimental group (n=22) and the control group (n=21). Regarding the implementation of this research study, the same listening tasks were chosen for both groups. However, the difference was that the experimental group received metacognitive listening instruction through a metacognitive pedagogical sequence, while the control group was trained with traditional listening instruction without incorporating metacognitive strategies, metacognitive awareness raising activities regarding especially peer discussion and reflection stages.

The quantitative data were collected utilizing three different instruments. The PET (B1) listening test was conducted as a pretest, posttest, and delayed posttest to evaluate participants' listening comprehension. Secondly, the Metacognitive Awareness Listening Questionnaire (MALQ) was used to assess metacognitive awareness of listening before, during, and after metacognitive education. Thirdly, the Foreign Language Anxiety Scale (FOLLAS) was utilized to evaluate participants' listening anxiety levels prior to and following the intervention. Lastly, seven volunteers were interviewed after the quantitative data collection finished. The qualitative data were gathered to investigate the attitudes of participants towards metacognitive instruction via semi-structured interviews.

According to the findings, in comparison to traditional listening instruction, metacognitive instruction did not result in a statistically significant improvement in

the listening performance of L2 learners. However, it was discovered that metacognitive instruction enhanced the metacognitive listening awareness of the experimental group's participants. Similarly, the data demonstrated that through metacognitive instruction, the experimental group could reduce their foreign language listening anxiety. The results of the quantitative data were also confirmed by the qualitative data. The learners' perceptions of their own levels of comprehension increased as a direct result of metacognitive instruction. The participants indicated that they have started utilizing metacognitive strategies not only for listening activities that took place within the classroom but also for listening situations that took place outside the classroom.

Moreover, qualitative data results suggest that participants perceived the lessons provided using metacognitive instruction to be more valuable and entertaining. Some participants stated that they found this strategy to be more effective than traditional listening instruction. Some participants also suggested that additional skill courses would be more beneficial if taught using this manner. They stated that traditional listening lessons were tedious, that they only focused on answering the questions correctly, and that they never considered their own performance or skills. However, as a result of this study, they began to apply these learnings and awareness in the classroom beyond the application. In addition, several of the participants reported that growing knowledge of their metacognition was beneficial for them in real-world situations, such as when they employed metacognitive listening strategies engaging in a real conversation. All participants stated as they became aware of their cognitive processes and reflected on what they could and could not do, i.e., as they gained self-awareness, their self-confidence improved, and their listening anxiety reduced.

6.2. Limitations of the Study and Recommendations for Future Research

In terms of the study's limitations, one of the most significant is the generalization of the findings. Since the study was conducted in Turkey with 43 B1-level EFL learners at a state university, the results cannot be generalized to a broader extent in order to explain the challenges in the EFL area. There is a need for additional studies which incorporate a variety of variables such as sample size, English proficiency level, and different contexts that may be significant determinants of the findings.

Secondly, considering improvements in all variables in both groups, although the groups were instructed with the same instructional materials, one should consider that learners consistently developed their English proficiency through in class and external activities related to English during the study. Some external factors such as general development in proficiency in English and changing motivational factors should be kept in mind.

Thirdly, this study adopted the metacognitive pedagogical sequence as an instructional model which follows an implicit teaching approach rather than explicit strategy instruction. Since explicit metacognitive instruction was also found useful in the literature (Cross, 2009; Zarrabi, 2016), further research might also focus on the effects of explicit metacognitive process-based instruction. Moreover, another limitation of the study is related to the duration of metacognitive instruction. In this study, metacognitive instruction took place for eight weeks for two lesson hours each week. More longitudinal research studies with longer practice sessions might be conducted to better examine the effect of metacognitive instruction since a longer duration of metacognitive instruction is found to be crucial to develop L2 listening skills (Graham, 2006).

Lastly, although the metacognitive pedagogical sequence was found helpful in lowering learners' listening anxiety, this study did not intend to evaluate any test anxiety in metacognitive listening activities during the instruction. Xu and Huang (2018) suggested that the effect of process-based metacognitive listening instruction on text anxiety should also be further investigated separately.

6.3. Implications of the Study

The current research contributes to the empirical evidence in support of adopting metacognitive listening training through a metacognitive pedagogical sequence by providing helpful insights for instructional and methodological components of instruction of listening in L2. The results of the current study are in line with the previous research studies, which suggested that metacognitive listening instruction is effective in increasing learners' listening performance (Coşkun, 2010; Yetiş, 2021; Yılmaz, 2019), promoting metacognitive awareness of listening (Bozorgian, 2014; Goh & Hu, 2013; Rahimi & Katal, 2013; Vandergrift & Tafaghodtari, 2010), and also in reducing listening anxiety (Movahed, 2014; Xu & Huang, 2018).

Considering the results of the research, many implications can be proposed. First of all, given that many contemporary language teaching materials continue to use a technique based on product-oriented instruction, it may be beneficial for curriculum developers to make their English language teaching plans and materials more process-oriented.

Moreover, listeners in the second language gain awareness on how to listen and its mechanisms, its complexity, potential obstacles, and solutions for overcoming such challenges through process-based guided metacognitive education with pedagogical processes. Thus, lesson plans consisting of exercises designed with a metacognitive pedagogical sequence can be incorporated into textbooks and curricula in order to aid learners' coping with listening anxiety and enhance awareness of cognitive, metacognitive, and even affective strategies.

In addition, for the successful adoption of process-based listening teaching and metacognitive listening models, educators must have a thorough understanding of these approaches. In addition to theoretical expertise, it is believed that training both pre-service ELT learners and EFL teachers on how to integrate these models and activities into lessons and curricula would be very beneficial for EFL learners who experience anxiety of listening, particularly in the Turkish context.

In light of the fact that standardized tests measure the listening product-based performances of learners, it is advised that listening process-based teaching and measurement methods should be investigated further so that learners become more self-regulated and self-aware.

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APPENDICES

Appendix 1. Metacognitive Awareness Listening Questionnaire

(Dinleme Becerisi Üstbilişsel Farkındalık Ölçeği)

Lütfen her ifadeden sonra görüşünüzü belirtiniz. İfadeye katılma düzeyinizi en iyi gösteren rakamı daire içine alınız.

Please circle only **ONE** number for each statement.

Items	**Strongly disagree** Kesinlikle katılmıyorum	**Disagree** Katılmıyorum	**Slightly disagree** Nispeten katılmıyorum	**Partly agree** Kısmen katılıyorum	**Agree** Katılıyorum	**Strongly agree** Kesinlikle katılıyorum
1. Before I start to listen, I have a plan in my head for how I am going to listen. *Dinlemeye başlamadan önce, kafamda nasıl dinleyeceğime dair plan yaparım*.	**1**	**2**	**3**	**4**	**5**	**6**
Items	**Strongly disagree** Kesinlikle katılmıyorum	**Disagree** Katılmıyorum	**Slightly disagree** Nispeten katılmıyorum	**Partly agree** Kısmen katılıyorum	**Agree** Katılıyorum	**Strongly agree** Kesinlikle katılıyorum
2. I focus harder on the text when I have trouble understanding. *Anlamada sıkıntı yaşadığım zaman*	**1**	**2**	**3**	**4**	**5**	**6**

dinleme parçasına daha çok odaklanırım.						
3. I find that listening in English is more difficult than reading, speaking, or writing in English. *İngilizce dinlemenin, İngilizce okumaktan, konuşmaktan veya yazmaktan daha zor olduğunu düşünürüm.*	**1**	**2**	**3**	**4**	**5**	**6**
4. I translate in my head as I listen. *Dinleme sırasında kafamın içinde çeviri yaparım.*	**1**	**2**	**3**	**4**	**5**	**6**
5. I use the words I understand to guess the meaning of the words I don't understand. *Anlamadığım kelimelerin anlamlarını tahmin etmek için anladığım kelimeleri kullanırım.*	**1**	**2**	**3**	**4**	**5**	**6**
6. When my mind wanders, I recover my concentration right away. *Başka şeyler düşünmeye başladığım zaman konsantrasyonumu derhal toplarım.*	**1**	**2**	**3**	**4**	**5**	**6**

7. As I listen, I compare what I understand with what I know about the topic. *Dinleme sırasında anladığım şeyler ile konu hakkında bildiğim şeyleri karşılaştırırım.*	**1**	**2**	**3**	**4**	**5**	**6**
8. I feel that listening comprehension in English is a challenge for me. *İngilizcede dinlediğini anlamanın benim için bir zorluk olduğunu hissederim.*	**1**	**2**	**3**	**4**	**5**	**6**
9. I use my experience and knowledge to help me understand. *Anlamama yardımcı olması için önceki deneyimlerimden ve bilgilerimden yararlanırım.*	**1**	**2**	**3**	**4**	**5**	**6**
10. Before listening, I think of similar texts that I may have listened to. *Dinlemeden önce, daha önce dinlemiş olabileceğim benzer dinleme parçalarını düşünürüm.*	**1**	**2**	**3**	**4**	**5**	**6**
11. I translate key	**1**	**2**	**3**	**4**	**5**	**6**

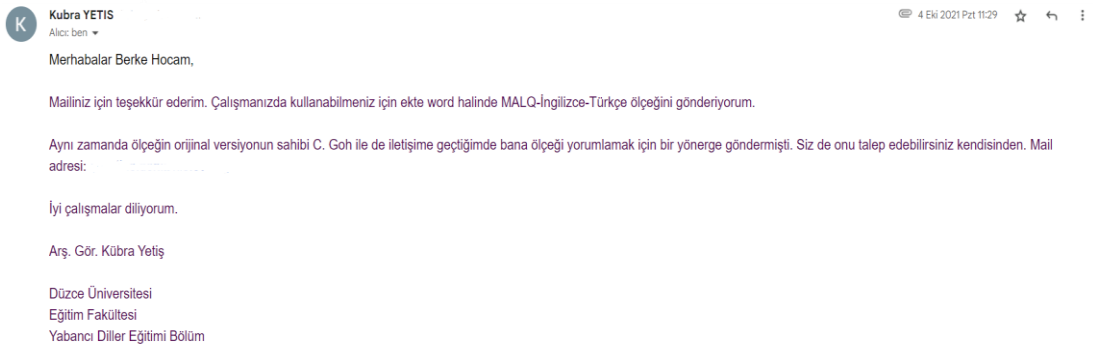
words as I listen. *Dinleme sırasında anahtar kelimelerin çevirisini yaparım.*						
12. I try to get back on track when I lose concentration. *Konsantrasyonumu kaybettiğim zaman dinlemeye devam etmeye çalışırım.*	**1**	**2**	**3**	**4**	**5**	**6**
13. As I listen, I quickly adjust my interpretation if I realize that it is not correct. *Dinleme sırasında çıkardığım anlamların yanlış olduğunu fark edersem onları çabucak düzeltirim.*	**1**	**2**	**3**	**4**	**5**	**6**
Items	**Strongly disagree** Kesinlikle katılmıyorum	**Disagree** Katılmıyorum	**Slightly disagree** Nispeten katılmıyorum	**Partly agree** Kısmen katılıyorum	**Agree** Katılıyorum	**Strongly agree** Kesinlikle katılıyorum
14. After listening, I think back to how I listened, and about what I might do differently next time. *Dinleme sonrasında nasıl dinlediğim hakkında ve*	**1**	**2**	**3**	**4**	**5**	**6**

gelecek zaman daha farklı neler yapabilirim konusunda düşünürüm.						
15. I don't feel nervous when I listen to English. *İngilizce dinleme sırasında gergin hissetmem.*	**1**	**2**	**3**	**4**	**5**	**6**
16. When I have difficulty understanding what I hear, I give up and stop listening. *Duyduğumu anlama sırasında sıkıntı yaşadığım zaman, pes ederim ve dinlemeyi bırakırım.*	**1**	**2**	**3**	**4**	**5**	**6**
17. I use the general idea of the text to help me guess the meaning of the words that I don't understand. *Anlamadığım kelimelerin anlamlarını tahmin etmeme yardımcı olması için dinleme parçasının ana Joeni kullanırım.*	**1**	**2**	**3**	**4**	**5**	**6**
18. I translate word by word, as I listen. *Dinleme sırasında kelimesi kelimesine çeviri yaparım.*	**1**	**2**	**3**	**4**	**5**	**6**

19. When I guess the meaning of a word, I think back to everything else that I have heard, to see if my guess makes sense. *Bir kelimenin anlamını tahmin ettiğim zaman, tahminimin mantıklı olup olmadığını kontrol etmek için duyduğum diğer şeyleri tekrar düşünürüm.*	**1**	**2**	**3**	**4**	**5**	**6**
20. As I listen, I periodically ask myself if I am satisfied with my level of comprehension. *Dinleme sırasında anlama seviyemden memnun olup olmadığımı belirli aralıklarla kendime sorarım.*	**1**	**2**	**3**	**4**	**5**	**6**
21. I have a goal in mind as I listen. *Dinleme sırasında aklımda bir amaç vardır.*	**1**	**2**	**3**	**4**	**5**	**6**

Appendix 2.

Permission to use the Turkish translated version of the MALQ



Kubra YETIS
Alıcı: ben

4 Eki 2021 Pzt 11:29

Merhabalar Berke Hocam,

Mailiniz için teşekkür ederim. Çalışmanızda kullanabilmeniz için ekte word halinde MALQ-İngilizce-Türkçe ölçeğini gönderiyorum.

Aynı zamanda ölçeğin orijinal versiyonun sahibi C. Goh ile de iletişime geçtiğimde bana ölçeği yorumlamak için bir yönerge göndermişti. Siz de onu talep edebilirsiniz kendisinden. Mail adresi:

İyi çalışmalar diliyorum.

Arş. Gör. Kübra Yetiş

Düzce Üniversitesi
Eğitim Fakültesi
Yabancı Diller Eğitimi Bölüm

Appendix 3. Foreign Language Listening Anxiety Scale (Yabancı Dilde Dinleme Kaygısı Ölçeği)

	Bana hiç uymuyor	**Çok az uyuyor**	**Biraz uyuyor**	**Oldukça uyuyor**	**Bana tamamen uyuyor**
1. Konuşulanları dinlerken her an önemli bir ayrıntıyı kaçıracağım korkusu yaşarım.	**1**	**2**	**3**	**4**	**5**
2. Dinleme etkinliklerinde göstereceğim çabanın başarılı olmak için yetmeyeceğine inanırım.	**1**	**2**	**3**	**4**	**5**
3. Dinleme etkinliği sonrasında yapılacak konuşma ve yazma çalışmaları, dinleme sürecinde yaşadığım gerginliği artırır.	**1**	**2**	**3**	**4**	**5**
4. Konuşma içeriğini doğru anlayamayacağım korkusuna kapılırım.	**1**	**2**	**3**	**4**	**5**
5. Konuşulanları anlayamadığımda, sınavlarda başarısız olacağım düşüncesi beni tedirgin eder. .	**1**	**2**	**3**	**4**	**5**
6. Birden fazla konuşmacının yer aldığı dinleme metinleri benim için bir endişe kaynağıdır.	**1**	**2**	**3**	**4**	**5**
7.Dinlediklerimi anlamlandırmaya çalışırken, konuşmanın akışını kaçıracağım korkusu yaşarım.	**1**	**2**	**3**	**4**	**5**
8. Dinlediklerimi anlamak zorunda olduğumu bilmek endişe vericidir.	**1**	**2**	**3**	**4**	**5**
9. Bilmediğim sözcük, kalıp ve cümle yapılarının bulunduğu içerikleri dinlerken gerginliğim artar.	**1**	**2**	**3**	**4**	**5**
10. Dinleme etkinliklerinde konuşulanlara odaklanma güçlüğü yaşarım	**1**	**2**	**3**	**4**	**5**
11. Konuşma içeriğinin, görüntü ve alt yazı desteği olmadan sunulduğu durumlarda tedirginliğim artar.	**1**	**2**	**3**	**4**	**5**
12. Bilgi sahibi olmadığım konularla ilgili içerikleri dinlerken, çaresizlik duygusuna kapılırım.	**1**	**2**	**3**	**4**	**5**

13. Konuşmacının konuşma hızına müdahale edememek tedirginliğimi artırır.	**1**	**2**	**3**	**4**	**5**
14. Dinlediklerimi anlayamadığımda, konuşma akışını durduramamak gerginlik yaşamama yol açar.	**1**	**2**	**3**	**4**	**5**
15. Konuşmacının ses tonu, tonlama ve telaffuz biçimi gibi faktörler beni endişelendirir.	**1**	**2**	**3**	**4**	**5**
16. Yabancı dil öğrenme konusunda en zor beceri dinlediğini anlamadır.	**1**	**2**	**3**	**4**	**5**
17. Dinleme, yabancı dil öğrenme sürecindeki en tedirgin edici etkinliktir.	**1**	**2**	**3**	**4**	**5**
18. Dinleme etkinlikleri için anlaşılması zor içeriklerin seçildiğini düşünürüm.	**1**	**2**	**3**	**4**	**5**

Appendix 4. Semi-structured Interview Questions

(Turkish)

1. İngilizce dinleme becerisi ve dinleme aktivitelerine karşı yaklaşımınız nasıl?

2. Üstbilişsel Dinleme Becerisi Öğretimi ile dinleme becerisindeki performansınızda bir değişiklik oluştu mu? Nasıl? Neler Değişti?

3. Üstbilişsel Dinleme Becerisi Öğretimi ile dinleme becerisine karşı tutumunuzda değişiklik oldu mu?

4. Üstbilişsel Dinleme Becerisi Öğretimi yöntemi ile dinleme kaygınızda bir değişim gerçekleşti mi? Evetse, nasıl?

5. Dinleme becerisi öğretiminde bu yöntemle edindiğiniz becerileri geleneksel dinleme öğretimi ile kıyaslayınız. Gelecekte hangisini kullanmayı daha faydalı buluyorsunuz?

(English)

1. How do you approach listening skills and listening activities in English?

2. Has there been a change in your performance in listening skills with Metacognitive Listening Skills Instruction? How? What has changed?

3. Has there been a change in your attitude towards listening with Metacognitive Listening Instruction?

4. Has there been a change in your listening anxiety with the Metacognitive Listening Instruction method? If yes, how?

5. Compare the skills you have acquired with this method in teaching listening skill with traditional listening instruction. Which one do you find more useful to use in the future?

Appendix 5 Aydınlatılmış Onam Formu

Değerli Katılımcı,

Bu araştırma Yıldız Teknik Üniversitesi Eğitim Bilimleri Enstitüsü Yabancı Diller Eğitimi Anabilim Dalı İngilizce Öğretmenliği Programında yüksek lisans eğitimini sürdükmekte olan Berke SARISOY tarafından yürütülmektedir. Bu çalışmada" Üstbilişsel Dinleme Öğretimi" metodunun hazırlık sınıfı öğrencilerinin yabancı dil olarak İngilizce dinleme becerileri ve üstbilişsel farkındalıkları üzerindeki etkileriyle, katılımcıların dinleme kaygısı ve özyeterlikleri üzerine etkilerini araştırmayı amaçlanmaktadır. Çalışma süresince katılımcıların "Üstbilişsel Dinleme Öğretimi/ Geleneksel Dinleme" derslerine katılması ve formların doğru şekilde doldurulması istenecektir. Çalışma, katılımcıyı değerlendirme amacı gütmemektedir. Bu çalışmaya katılmanız ve/veya çalışmanın sonuçları hiçbir şekilde ders notlarına etki etmeyecektir. Çalışmaya katılım tamamen gönüllülük esasına dayanmaktadır. Çalışmaya katılmama ve/veya çalışmadan dilediğiniz anda ayrılma hakkına sahipsiniz. Çalışmadan elde edilecek veriler tamamen araştırma amaçlı kullanılacak olup verileriniz gizli tutulacaktır.

Çalışma boyunca katılımcılar, araştırmanın başında ve sonunda olmak üzere 'The Metacognitive Awareness Listening Questionnaire'- Dinleme Becerisi Üstbilişsel Farkındalık Anketi'ni, Cambridge University Press tarafından hazırlanan PET- Preliminary English Test sınavının dinleme bölümünü, İngilizce İle İlgili Öz-yeterlik İnancı Ölçeği'ni ve Yabancı Dilde Dinleme Kaygısı Ölçeği'ni cevaplandıracaklardır. Deney grubundaki gönüllü katılımcılarla metodun uygulanması sırasında bir kere Uyarılmış- Geri Çağırma Görüşmesi (Stimulated Recall Protocols) yapılacak olup araştırma sonunda bu metoda dair tutumlarını öğrenmek için yarı yapılandırılmış görüşme soruları yöneltilecektir.

Çok değerli katılımınız için teşekkür ederim.

Berke Sarısoy
Öğretim Görevlisi

Yukarıda yer alan bilgileri okudum. Kişisel bilgilerimin sadece ve sadece araştırma için kullanılacağını anladım. Bu çalışmaya gönüllü katılımcı olarak araştırmaya kendi isteğimle katılmayı kabul ediyorum.

Katılımcının kod adı:

Appendix 6 Weekly schedule

Weeks (90 min)	**Topics**	**Source**
Week 1	An introduction to lecture	British Council
Week 2	Isaac Newton and Carl Sagan	Unlock
Week 3	Theme parks	British Council
Week 4	An interview with a fashion writer and shop owner	Unlock
Week 5	Unusual food festivals	Unlock
Week 6	An interview about listening skills	British Council
Week 7	Lobsters, octopuses and crabs feel pain says U.K	BreakingNewsEnglish
Week 8	A lecture about discoveries.	Unlock

Appendix 7 Listening Diary Sample for the Experimental Group

Listening Diary

Code Name:
Topic:
Date:

My predictions / Planning:
(Note down main ideas, phrases, words and concepts that you think will be mentioned in the text)

First Listening/ First Verification:
(Listen to the text. Put a tick next to the ideas that you predicted and that were also mentioned in the text, and note down any other ideas that you could not predict but were mentioned. Then discuss your listening results with your peer.)

Second Listening / Second Verification:
(Listen to the text again to check your predictions. Try to add potential points you may have comprehended but you are not sure to check.)

Third Listening / Third Verification: Listen to the text for the third time to confirm your understanding
after a whole-class discussion while reading the transcript of the text.

Reflection: Consider the points below and reflect on them.

What I succeeded:
What I had trouble in:
What I will do for future listening (plans for future listening):

Appendix 8 Listening Diary Sample for the Control Group

CODENAME:
Topic:
Date:

First Listening:

Second Listening:

Third Listening with the transcript of the text: -