



**DEVELOPING LISTENING COMPREHENSION SKILL THROUGH
METACOGNITIVE STRATEGY TRAINING IN A TABLET-ASSISTED
LEARNING ENVIRONMENT**

Büşra Şiringür

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Tez yazma sürecinde bilimsel ve etik ilkelere uyduğumu, yararlandığım tüm kaynakları kaynak gösterme ilkelerine uygun olarak kaynakçada belirttiğimi ve bu bölümler dışındaki tüm ifadelerin şahsıma ait olduğunu beyan ederim.

Yazar Adı Soyadı : Büşra ŞİRİNGÜR

İmza :

JÜRİ ONAY SAYFASI

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Danışman: Doç. Dr. Semra SARAÇOĞLU

İngiliz Dili Eğitimi Anabilim Dalı, Gazi Üniversitesi

Üye: Doç. Dr. Cemal ÇAKIR

İngiliz Dili Eğitimi Anabilim Dalı, Gazi Üniversitesi

Üye: Dr. Öğr. Üyesi Çağla ATMACA

İngiliz Dili Eğitimi Anabilim Dalı, Pamukkale Üniversitesi

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To my family

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TABLET DESTEKLİ EĞİTİM ORTAMINDA ÜSTBİLİŞSEL STRATEJİ EĞİTİMİ YOLUYLA DİNLEME BECERİSİNİN GELİŞTİRİLMESİ

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ÖZ

Bu çalışma, üstbilişsel strateji eğitimi yoluyla tablet destekli eğitim ortamında İngilizceyi ikinci dil olarak öğrenen öğrencilerin dinleme becerilerinin ve üstbilişsel farkındalıklarının geliştirilmesi amacıyla yapılmıştır. Çalışmada 2018-2019 eğitim öğretim yılında Atılım Üniversitesi Yabancı Diller Yüksekokulu Temel İngilizce Bölümünde eğitim gören 35 öğrenci yer almıştır. Çalışmada deney ve kontrol grupları rastgele oluşturulmuş ve nicel veri toplama araçları kullanılmıştır. Beş hafta süren üstbilişsel strateji eğitimi boyunca, deney grubundaki 18 öğrenci dinleme stratejileri hakkında bilgilendirilmiş ve bu amaçla hazırlanmış dinleme materyalleri kullanılarak öğrencilerin bu stratejileri farkında olarak kullanmaları amaçlanmıştır. Kontrol grubundaki 17 öğrenci ise, aynı dinleme materyallerini aynı sürede ancak stratejiler hakkında bilgilendirilmeden dinlemişlerdir. Veri toplama aracı olarak uzman görüşü alınarak hazırlanan dinlediğini anlama ön ve son testi kullanılmıştır. Ayrıca öğrencilerin üstbilişsel farkındalıklarını belirlemek amacıyla Üstbilişsel Farkındalık Dinleme Anketi (Metacognitive Awareness Listening Questionnaire, MALQ), ön ve son test olarak kullanılmıştır. Dinlediğini anlama ve ön ve son testinden ve Üstbilişsel Farkındalık Dinleme Anketi ön ve son testinden elde edilen veriler SPSS programı aracılığı ile analiz edilmiştir. Verilerin analizi sonucunda, öğrencilerin dinleme becerileri ve üstbilişsel farkındalık geliştirmeleri konusunda strateji eğitiminin kayda değer bir etki sağladığı görülmüştür. Çalışma, üstbilişsel strateji eğitiminin öğrencilerin dinleme becerisine katkı sağlayabileceğini ve üstbilişsel farkındalıklarını arttırabileceğini göstermiştir.

Anahtar Kelimeler : Dinlediğini anlama becerisi, üstbilişsel strateji eğitimi, üstbilişsel farkındalık

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ABSTRACT

The aim of this study was to develop listening skills and metacognitive awareness of students learning English as a second language through metacognitive strategy training in tablet-assisted learning environment. The study included 35 students studying at Atılım University School of Foreign Languages, Department of Basic English in 2018-2019 academic year. The experimental and control groups were randomly generated and quantitative data collection tools were used. During the five-week metacognitive strategy training, 18 students in the experimental group were informed about the listening strategies and it was aimed to make the students aware of these strategies by using listening materials prepared for this purpose. In the control group, 17 students were provided with the same listening materials at the same time but they were not informed about the strategies. Listening comprehension pre and post-tests which were prepared via expert opinion were used as the data collection tools. In addition, Metacognitive Awareness Listening Questionnaire (MALQ) was used as a pre and post test to determine students' metacognitive awareness. The data obtained from listening comprehension and pre and post tests and Metacognitive Awareness Listening Questionnaire were analyzed through SPSS program. As a result of the data analysis, it was found that strategy training had a significant effect on students' listening skills and metacognitive awareness development. The study showed that metacognitive strategy training can contribute to students' listening skills and increase their metacognitive awareness.

Key Words : Listening comprehension skill, metacognitive strategy training,
metacognitive awareness

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LIST OF ABBREVIATIONS

CALL	Computer-Assisted Language Learning
MALQ	Metacognitive Awareness Listening Questionnaire
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CHAPTER I

INTRODUCTION

This chapter presents the general framework of the study. Firstly, the problem of the study is described. Subsequently, the aim of the study, the importance of the study, assumptions, limitations, and definitions are clarified.

1.1. Statement of the Problem

Listening is an important part of the communicative competence. In communication, listening takes up most of the total time in comparison to speaking, reading and writing (Mendelsohn, 1994). Another aspect which makes listening essential for communication is that “it is a complex, active process in which the listener must discriminate between sounds, understand vocabulary and grammatical structures, interpret stress and intonation” (Vandergrift, 1999, p.168). Therefore, it is one the most problematic skills in the process of language learning. Since listening is the way of receiving input, it has a very important role in learning. Additionally, it is the skill that is used most frequently in daily life (Rost, 2002). Although it is considered as a passive or receptive skill, it requires listeners to process the information actively (Young, 1997). Despite its importance, it is the “Cinderella skill” (Nunan, 1997) which is generally neglected because productive skills receive most of the attention. Nevertheless, listening is an essential skill to promote language learning and it needs to be analyzed and focused more. Osada (2004) states that “although listening is now well organized as a critical dimension in language learning, it

still remains one of the least understood processes” (p. 53). In the early stages of second language teaching, grammar, reading and vocabulary were primarily important. Until the 1900s, there was not much attention to listening in language instruction (Osada, 2004). In other words, when the number of books and teaching practices for listening comprehension are taken into consideration, it can be clearly seen that listening is not as important as the other skills (Brown, 1987). After the evolvement of the approaches to listening instruction, it is now considered as a skill including various processes and more attention is attracted to this skill compared to the past. Byrnes (1984) defines listening as a “highly complex problem solving activity”, which requires composing different sub-skills from discrimination of the sounds to interpretation of the stress. Therefore, in order to comprehend the information they listen to, listeners need to use various mental processes. (Esmaeili, Taki & Rahimian, 2017). The complexity of the listening process necessitates using some strategies effectively. In addition to this, technology has been used for the educational purposes so learners have many opportunities to use mobile devices in classroom environment. Some of the schools make use of the tablets rather than using traditional books. Although using tablets enable learners to reach many sources easily, they are not able to benefit from the advantages provided by these mobile devices especially for listening. For this reason, learners should be provided with metacognitive strategy training to guide, monitor and control themselves while listening in order to understand the message of the speaker properly. As a result, this study sets out to investigate the impact of metacognitive strategy training on students’ metacognitive awareness and listening comprehension skills in a tablet-assisted learning environment at Atılım University.

1.2. Aim of the Study

Because listening comprehension has an important role to facilitate language learning, students should be trained to use metacognitive strategies so that they can comprehend better while they are listening via their tablets. Also, by applying these strategies, students

will be able to “know about learning and control learning through planning, monitor and evaluate the learning activity” (Esmaeili, Taki & Rahimian, 2017, p. 255). Being aware of the strategies has improving effects on learners’ listening development. Therefore, the main aim of this study is to find out whether Atılım University Preparatory School students’ listening comprehension skills and metacognitive awareness can be developed through metacognitive strategies in tablet-assisted learning environment. With all the above-mentioned problems in mind, this study aims to find answers to the following research questions:

1. What are the listening comprehension levels of students in the experimental group that is taught by metacognitive strategies and the control group who receives traditional instruction?
2. Does the training of metacognitive strategies cause any differences between listening comprehension levels of the students in the experimental group and control group?
3. Are there any differences between the students in the experimental group and the control group in terms of metacognitive awareness?
4. Does the training of metacognitive strategies cause any differences between metacognitive awareness of students in the experimental group and control group?

1.3. Importance of the Study

Listening is one of the most problematic skills in EFL contexts and educators try to come up with effective ways to enable students to listen in a proper way. Although there are various studies conducted to improve listening comprehension skill, Goh (2008) suggests that more study is needed to find out the impacts of metacognitive strategies and awareness in particular contexts. Furthermore, there have not been studies on implementing metacognitive strategies to teach listening comprehension at a university that has a tablet-assisted teaching and learning environment using tablets instead of traditional hardcopy course books. While improving their listening comprehension skills, students can also

regulate their thinking process, which is explained by the term metacognition which involves both the awareness of thinking and learning. Lastly, most of the learners in the preparatory school have difficulties in listening exams and complain about not following the speaker in listening records, this problem may stem from the lack of strategy use or awareness as well as the linguistic knowledge. For this reason, by applying metacognitive strategies, this study is expected to make a contribution to further research and studies on the second language listening skill.

1.4. Limitations

1. This study is limited to five-week implementation.
2. This study is limited to two groups of students who are studying at preparatory school at Atılım University in 2018 – 2019 academic year.
3. While answering the questions, students' states of minds may affect the validity of the quantitative instruments.
4. The results of the pre- and post-tests may be affected by the absenteeism of some students.

1.5. Assumptions

The following assumptions were taken into consideration during the implementation:

1. The listening comprehension level of both the experimental group and control group are assumed to be similar.
2. The metacognitive awareness level of both the experimental group and control group are assumed to be similar.
3. It is assumed that students answer the questions in Metacognitive Awareness Listening Questionnaire (MALQ) test sincerely and honestly.

1.6. Definitions of Some Key Concepts

Listening comprehension skill: “Listening is an active, purposeful process of making sense of what we hear” (Helgesen, 2003, p. 24). Listening comprehension includes various processes. Richards (1985) states that “current understanding of the nature of the listening comprehension draws on research in psycholinguistics, semantics, pragmatics, discourse analysis and cognitive science” (p. 189).

Strategy training: This term means “teaching explicitly how, when, and why to apply language learning and language use strategies to enhance students’ efforts to reach language program goals” (Carrell, 1998; Cohen, 1998; Ellis & Sinclair, 1989, as cited in Chen, 2005, p. 5).

Metacognition: “Metacognition refers to one’s knowledge concerning one’s own cognitive processes and products or anything related to them, e.g. the learning-relevant properties of information or data” (Flavell, 1976, p. 232).

CHAPTER II

REVIEW OF LITERATURE

This chapter presents an overview of listening skill with a detailed explanation on the nature of listening skill. Then, the literature review about the concept of metacognition is presented. The significance of metacognitive strategies in language teaching is handled. Finally, tablet-assisted language learning is provided.

2.1. Listening Comprehension Skill

Listening comprehension has been acknowledged in different ways for many years. Listening was neglected at the beginning of the 20th century, since the Audiolingual method suggested that learners can improve their listening skill by only exposure to the target language. The basic principle of this method is learning through imitation and practice. Meyer (1984) remarks that “the former approach to listening, which treated it as enabling skill for production-oriented activities, has trapped students in a frenzied ‘Hear it, repeat it!’, ‘Hear it, answer it!’ or ‘Hear it, translate it!’ nightmare” (p. 343). For this reason, “learners’ second language listening strategies are weak and defective” (Meyer, 1984, p. 343). With the new trends suggested in International Association of Applied Linguistics Conference in 1969, listening comprehension came into prominence (Morley, 2001). As Morley (2001) remarks, some important points were highlighted in the conference:

1. “individual learners and the individuality of learning,

2. listening and reading as non-passive and very complex receptive processes,
3. listening comprehension's being recognized as a fundamental skill,
4. real language used for real communication as a viable classroom model" (p. 69).

With the new trends emphasized, listening began to come into fashion in the 1970s and programs started to include listening skill as well as the other three skills. In the 1980s, the importance of the listening comprehension increased in line with ideas about comprehensible input. "A short time later, it was reinforced by James Asher's Total Physical Response, a methodology drawing sustenance from Krashen's work, and based on the belief that a second language is learned most effectively in the early stages if the pressure for production is taken off the learners" (Nunan, 1995, p.51). "During the 1980s, proponents of listening in a second language were also encouraged by the work in the first language field". (Nunan, 1995, p.51). Now, listening is defined as a complex and essential skill in language learning. As Byrnes (1984) points out, listening comprehension is a "highly complex problem solving activity" which should be divided into different sub-skills (p.318). Also, Richards (1985) argues that "current understanding of the nature of listening comprehension draws on research in psycholinguistics, semantics, pragmatics, discourse analysis, and cognitive science" (p. 189). Even if listening is one of the important aspects of language learning, it is still neglected in some ways. According to Morley (1999), "although listening comprehension is now well recognized as an important facet of language learning, much work remains to be done" (p.69). The importance of listening comprehension skill is widely accepted; however it is sometimes neglected and taught poorly in many contexts. In addition, "listening is still regarded as the least important skill in language teaching" (Morley, 1999, p.69).

2.2. Listening Competence

Listening is a complex process which requires understanding the working of listening comprehension and cognitive processes operating during listening. As Vandergrift and Goh

pointed out (2012), listening comprehension consists of four cognitive processes: “(1) top-down and bottom-up processing; (2) controlled and automatic processing; (3) perception, parsing, and utilization; and (4) metacognition” (p.17). These processes indicate listeners’ actions while listening and the way of doing and regulating these processes in an efficient way. Figure 1. shows the relationships between the different cognitive processes while listening.

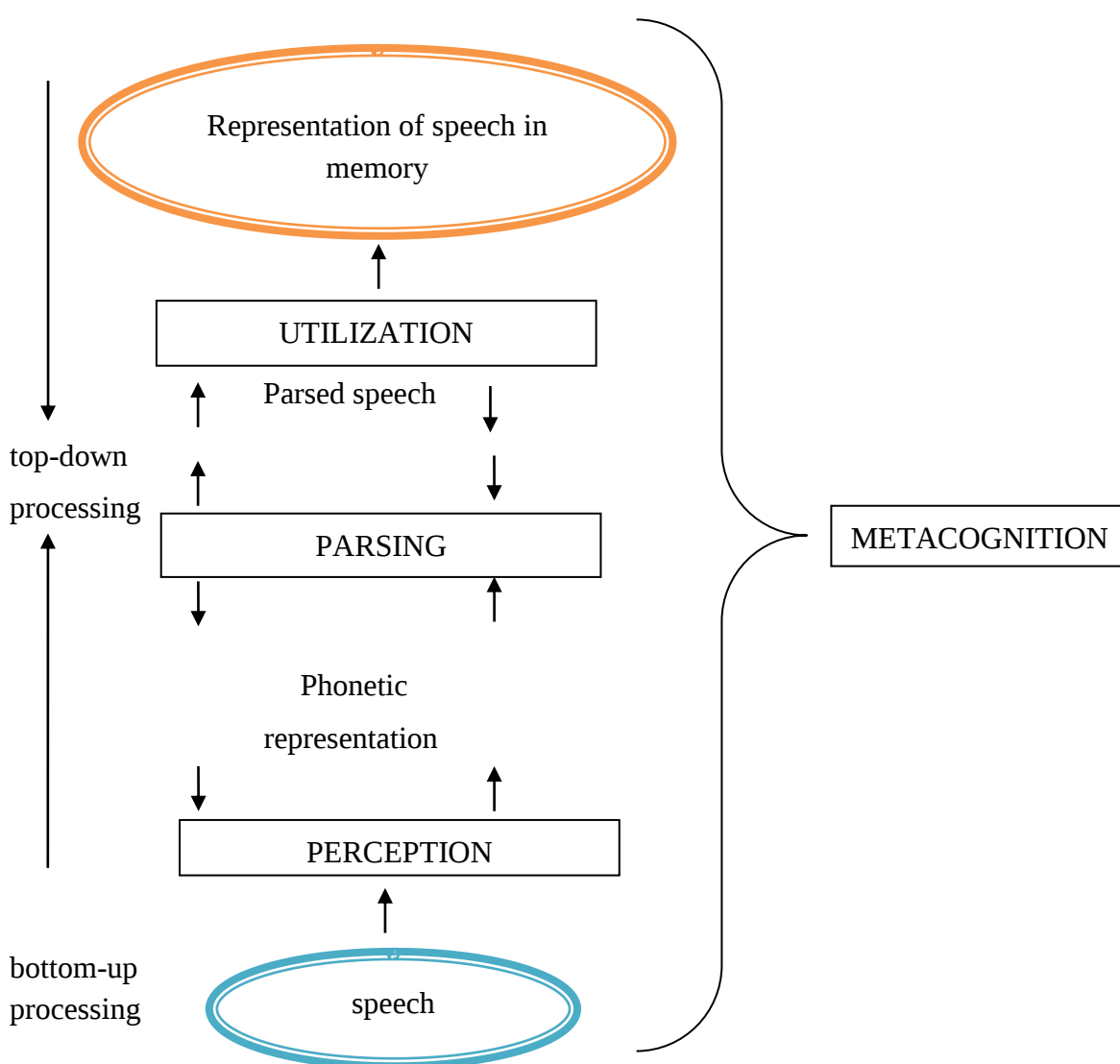


Figure 1. The relationships between cognitive processes in the act of listening Taken from Vandergrift, L. & Goh, C.M. (2012). Teaching and learning second language listening: metacognition in action. New York: Routledge. 17-55

One of the processes that listeners regulate while listening is bottom-up processing. According to Lynch and Mendelsohn (2002), “bottom-up processing involves piecing

together the parts of what is being heard in a linear fashion, one by one, in sequence” (p. 180). In other words, listeners construct meaning from smaller units to words gradually. “It is a rather mechanical process in which listeners segment the sound stream and construct meaning by accretion, based on their knowledge of the segmentals (individual sounds or phonemes) and suprasegmentals (patterns of language intonation, such as stress, tone, and rhythm) of the target language” (Vandergrift & Goh, 2012, p. 18). For Field (2008), this process also includes decoding which is described as “translating the speech signal into speech sounds, words, and clauses, and finally into a literal meaning” (p. 125). Thus, in order to have fuller understanding, listeners should decode the entire message. Thus, this process is not adequate for comprehension since “after decoding, the learner is left with a literal interpretation of the input, absent of any context to assist in meaningfully understanding the complete message” (Wallace, 2012, p. 12).

Top-down processing requires listeners to draw from the context and have the necessary knowledge about the related topic to build meaning rather than only decoding the words or clauses during the act of listening. These processes are applied by listeners because of two reasons: to “provide extra evidence that assists the decoding process” (p. 131); and to “enrich the raw meaning of the utterance and make it relevant to the current situation” (p. 131). As it is mentioned, while listening, “listeners can apply different types of knowledge to the task, including: prior (world or experiential) knowledge, pragmatic knowledge, cultural knowledge about the target language, and discourse knowledge (types of texts and how information is organized in these texts)” (Vandergrift & Goh, 2012, p.18). The aim of the listening requires listeners to use one of these processes for example if listeners’ purpose is to find the specific information, they may apply bottom-up processing more or if the goal is to get the main idea, they may engage top-down processing. Therefore, learners should be instructed about how to use these processes in a proper situation by taking the purpose of listening into consideration.

2.3. Metacognition and Metacognitive Instruction for Listening Development

Metacognition has been defined in different ways. It can be described as being aware of the cognitive processes. Moreover, it means controlling and regulating what and how a person thinks in a particular way. According to a definition suggested by Flavell (1976), “metacognition refers, among other things, to active monitoring and consequent regulation and orchestration of these processes in relation to the cognitive objects or data on which they bear, usually in the service of some concrete goal or objective” (p. 232). If learners become aware of their learning process, this can be defined as metacognition. According to Flavell (1979), there are three types of metacognitive knowledge: person, task and strategy. In order to explain these types in detail, Vandergrift (2002) remarks person knowledge as “knowledge of the cognitive and affective factors that facilitate learning and what learners know about themselves” (p. 568). He defines task knowledge as “knowledge of the purpose and nature of the task, its demands on the learner, and when deliberate effort is needed” (p. 568). Also, strategy knowledge is described as knowledge about “effective strategies for particular tasks as well as how to best approach language learning” (p. 568). While carrying out a listening task, learners’ performance depends on developing these three knowledge properly (Goh, 2008; Lam, 2009; Vandergrift, 2004). Paris and Winograd (1990) point out that metacognition has two important aspects: “self-appraisal and self-management of cognition” (p. 17). A person’s knowledge and reflection about his/her skill or ability can be described as self-appraisal. These reflections aim to answer the questions about “what you know, how you think, and when and why to apply knowledge strategies” (Paris & Winograd, 1990, p. 17). Moreover, Paris and Winograd (1990) remark self-management as “metacognition in action”, “the plans that learners make before tackling a task” and “the adjustments they make as they work”, and “the revisions they make afterwards” (p. 18). In addition to this, Vandergrift and Goh (2012) suggested a metacognitive framework that consists of three elements: experience, knowledge, and strategies. Figure 2. indicates the metacognitive framework for second language listening instruction.

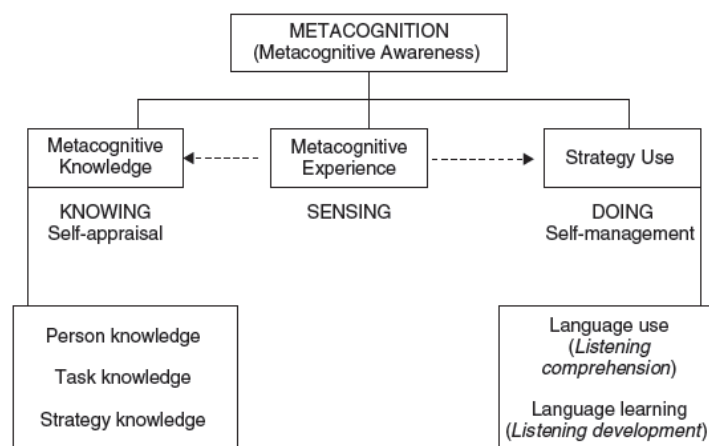


Figure 2. A metacognitive framework for listening instruction Taken from Vandergrift, L. & Goh, C. M. (2012). *Teaching and learning second language listening: metacognition in action*. New York: Routledge. 17-55

Metacognitive experience requires learners to come up with a solution to a problem while listening by taking the similar past experiences into consideration. In addition, if learners are not able to comprehend a word while listening, they may apply a strategy which they used to solve the same problem.

When it comes to strategy use, it needs learners to use the proper strategy to meet the demands of cognitive, social and affective goals. In case of a problem resulting from the lack of comprehension, learners may apply strategies to achieve the goals of the task. Additionally, as Vandergrift and Goh maintain (2012) state, “strategies help them improve comprehension, retention, and recall of information; and, at the same time, they assist in planning for overall listening development as part of their language learning effort” (p.89). Additionally, the success of a listening task is closely linked to the metacognitive control of a learner (Graham & Macaro, 2008).

As indicated previously, metacognitive knowledge affects learners’ listening performances in a positive way. For this reason, in the light of the previous research, it can be said that classroom instruction is necessary to increase learners’ metacognitive knowledge (Liu & Goh 2006; Vandergrift 2004). Consequently, metacognitive instruction is essential for learners’ listening development since “metacognitive instruction can potentially heighten

learners' awareness of their listening and learning processes and develop learners' ability to use appropriate strategies" (Goh, 2008, p. 195).

2.4. Metacognitive Strategy Training in L2 Listening

In many studies, it can be clearly concluded that using metacognitive strategies effectively affects learners' listening comprehension in a positive way (Graham & Macaro, 2008; Vandergrift & Tafaghodtari, 2010). The study conducted by Vandergrift (1993) in French High School showed that successful learners have a tendency to use metacognitive strategies more than the other learners who are less successful in comprehension. In the model suggested by Vandergrift (1997), strategies are listed as four: planning, monitoring, evaluation and problem identification. Vandergrift and Goh (2012) categorized strategies by taking their roles to facilitate listening comprehension into consideration. They consist of:

- "helping to process and interpret information by manipulating and transforming the aural input;
- observing the way information is processed or learned;
- taking appropriate steps to manage and regulate these cognitive processes;
- managing emotions;
- involving other people or exploiting learning resources to assist in comprehension and learning" (p. 90).

Some of these strategies may contribute to the real-life listening skills of learners as well as the listening comprehension during the class time. Murphy (1985) suggests that "the strategies work best when they couple together like the links in a fence, or the molecular units that bond together to form the double helix of a molecule of DNA" (p. 38). If the learners are aware in terms of metacognition, they can easily apply different strategies according to the necessity of the task that they carry out while listening. Besides, learners are able to learn how to listen and they can make connections between the lack of

comprehension and what they already know. To see the effect of metacognitive strategy, King (1991) carried out a study with the learners in a secondary school. This study clearly shows that using the strategy improves learners' comprehension since learners are able to manage their cognitive processes during learning. Chang (2014) also conducted a study that aimed to promote learners listening comprehension by the help of strategy instruction. To investigate the effectiveness of metacognitive strategy instruction among college students, learners are exposed to video activities. At the end of the study, it is concluded that learners perform better in the listening comprehension test in comparison with their previous performances. Additionally, Russo, and Kupper (1985) remark that "students without metacognitive approaches are essentially learners without direction or opportunity to review their progress, accomplishments, and future directions" (p.561). In another investigation developed by Wang (2002), the relationship between strategy use and listening comprehension was examined. The study was carried out in Taiwan with EFL learners. The findings of the study suggest that applying the listening comprehension strategy reinforces learners' listening comprehension. Moreover, another research which was done by Cross (2011) shows similar findings. In other words, it emphasizes that using metacognitive strategies improves Japanese EFL students' listening comprehension.

In Turkey, in a study conducted by Katrancı and Yangın (2013), effects of the metacognitive strategy training on students' listening comprehension levels and attitudes towards listening were investigated. The study was conducted with fifth grade students. According to the findings of the study, experimental group students' listening comprehension levels and attitudes toward listening (2013) were significantly different from the control group. Another study developed by Ozturk examined the effects of metacognitive strategies on students' success. The study was carried out in Konya, Seljuk University with the students of the ELT department. The results of the study indicated that the students who used metacognitive strategies were more successful than the other students who were not aware of the strategy use. Also, Gonen (2009) carried out a study in Turkish EFL context in order to examine the relationship between the listening anxiety and

the listening strategy. The results clearly showed that when the strategy use of the students decreased, their listening anxiety level increased. Moreover, the study indicated that low anxious students applied listening strategies more than the high anxious students.

In addition, Vandergrift (1999) points out that strategy use enhances listening comprehension of the learners. For this reason, special importance should be given to listening comprehension of the second language as early as possible and this can enable four different advantages: cognitive, efficiency, utility and affective. Furthermore, Goh (2008) proposes that metacognitive strategies decrease learners' anxiety and improve their confidence. She also maintains that metacognitive strategy training is more beneficial for the learners who are weaker than the others. Similarly, Vandergrift (1997) categorizes metacognitive strategies for second language listening comprehension. Table 1. summarizes these strategies:

Table 1

Metacognitive Strategies

1. Planning: Developing an awareness of what needs to be done to accomplish a listening task, developing an appropriate action plan and/or contingency plans to overcome difficulties that may interfere with successful completion of the task.	
1a. Advance organization	Clarifying the objectives of an anticipated listening task and/or proposing strategies for handling it.
1b. Directed attention	Deciding in advance to attend in general to the listening task and to ignore irrelevant distractors; maintaining attention while listening.
1c. Selective attention	Deciding to attend to specific aspects of language input or situational details that assist in understanding and/or task completion.
1d. Self-management	Understanding the conditions that help one successfully accomplish listening tasks and arranging for the presence of those conditions.
2. Monitoring: Checking, verifying, or correcting one's comprehension or performance in the course of a listening task.	
2a. Comprehension monitoring	Checking, verifying, or correcting one's understanding at the local level.
2b. Auditory monitoring	Using one's "ear" for the language (how something sounds) to make decisions.
2c. Double-check monitoring	Checking, verifying, or correcting one's understanding across the task or during the second time through the oral text.
3. Evaluation: Checking the outcomes of one's listening comprehension against an internal measure of completeness and accuracy.	
3a. Performance evaluation	Judging one's overall execution of the task.
3b. Strategy evaluation	Judging one's strategy use.
4. Problem identification: Explicitly identifying the central point needing resolution in a task or identifying an aspect of the task that hinders its successful completion.	

Taken from Vandergrift, L. (1997). The comprehension strategies of second language (French) listeners: A descriptive study. *Foreign Language Annals*, 30, 387-409.

Vandergrift (1999) proposes these strategies in order to improve learners' skills to employ strategies smartly. He also suggests that learners should monitor their understanding and evaluate what they comprehend during the act of listening. Learners should figure out what decisions they make while listening and they should evaluate the consequences of these decisions. By this way, they can decide which strategy they apply affects their listening comprehension in a better way. As a last suggestion, Vandergrift remarks that by the help of a checklist developed by instructors, learners may assess their performance and indicate the process of learning by criticizing their performance in terms of both weak and strong aspects.

Additionally, Goh (2008) indicated that it is required to plan activities in order to increase learners' metacognitive awareness. These activities should enable learners to use proper strategies to manage their learning process. Goh also suggests that metacognition has two aspects: metacognitive knowledge (personal, task and strategy knowledge) and metacognitive strategies (planning, monitoring and evaluation). Table 2. shows the general objectives for metacognitive instruction:

Table 2

General Learning Objectives for Metacognitive Instruction

Metacognitive Knowledge	Metacognitive Strategies
<i>Person Knowledge</i> Develops better knowledge of self as an L2 listener: • Examines personal beliefs about self-efficacy and self-concepts with regard to listening in a second language • Identifies listening problems, causes and possible solution	<i>Planning</i> Determines own listening (•) and learning (✓) goals and the means by which the objectives can be achieved: • Previews main ideas • Rehearses language needed for the task • Identifies important parts of input to attend to ✓ Sets personal goals for listening development ✓ Seeks appropriate opportunities for listening practicing
<i>Task Knowledge</i> Understands the nature of L2 listening and the demands of the task of learning to listen: • Experiences mental, affective and social processes involved in listening • Differentiates different types of listening skill (e.g. listening for details, listening for gist, listening to infer information) • Analyses factors that influence listening performance (e.g. speaker, text, interlocutor, strategy) • Compares and evaluates ways to improve listening abilities outside formal instruction	<i>Monitoring</i> Checks the progress of own comprehension while listening (•) and general efforts at developing own listening ability (✓). • Checks understanding of message by drawing on appropriate sources of knowledge (e.g. context, factual, linguistic) • Checks the appropriateness and accuracy of one's understanding against old and new information ✓ Considers progress of listening development in light of what has been planned ✓ Assesses chances of achieving learning goals
<i>Strategy Knowledge</i> Understands the roles of cognitive, metacognitive and social-affective strategies: • Identifies strategies that are appropriate for specific types of listening task and problem • Demonstrates the use of strategies • Identifies strategies that may not be appropriate for their learning style or culture	<i>Evaluating</i> Judges the success of own comprehension after a listening task (•) and the plan for developing own listening ability (✓) • Determines the overall acceptability of one's understanding and interpretation of the message /information • Checks the appropriateness and accuracy of one's understanding against old and new information • Assesses the effectiveness of strategies for learning and practice ✓ Assesses the effectiveness of one's overall plan to improve listening ✓ Assesses the appropriateness of learning goals set

Taken from Goh, C. (2008). Metacognitive instruction for second language listening development: Theory, practice and research implications. *RELS Journal*, 39, 188-213.

Furthermore, learners should be trained about the benefits of using strategies. If they are informed enough, they may make more effort to apply these strategies (Veenman et al. 2006). As mentioned previously, many studies conclude that metacognitive instruction affect learners' listening comprehension in a positive way. Hence, activities should be developed in accordance with the principles that are related to metacognition. Goh (2008) develops listening tasks by taking those principles into consideration. Table 3. summarizes the metacognitive listening activities:

Table 3

Metacognitive Learning Activities for Listening Development

Types of Metacognitive Instructional Task	Learning Activities
A. Integrated Experiential Listening Tasks	• Metacognitive Listening Sequence • Self-directed Listening • Peer-designed Listening Programs • Post-listening Perception Activities
B. Guided Reflections on Listening	• Listening Diaries • Anxiety and Motivation Charts • Process-based Discussions • Self-report Checklist

Taken from Goh, C. (2008). Metacognitive instruction for second language listening development: Theory, practice and research implications. *RELS Journal*, 39, 188-213

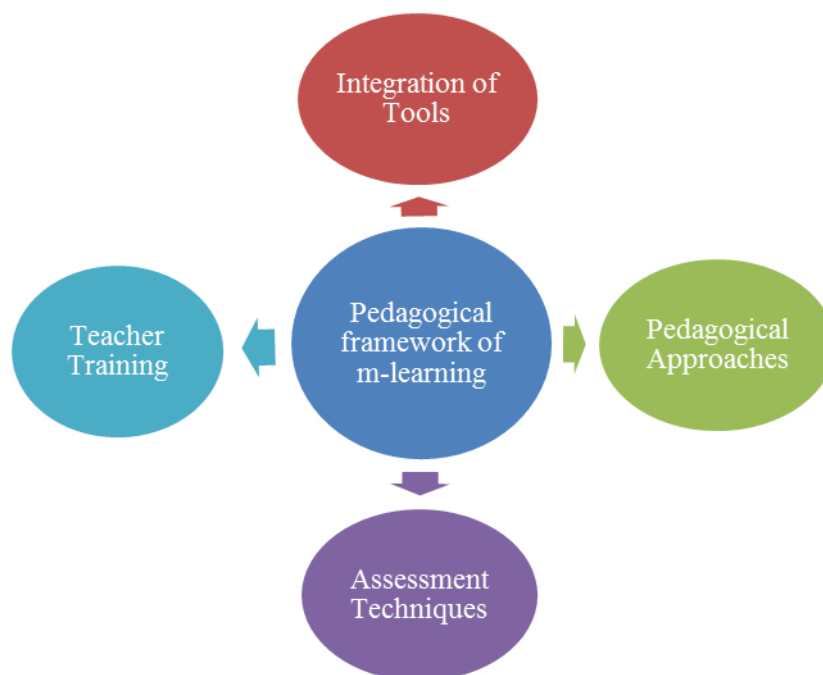
2.4. Mobile Assisted Language Learning

Using technology for the purpose of teaching and learning has become widespread for a long time. Many schools and universities have investigated the use of technology for learning since the 1980s (Sharples et al., 2010). According to Sandberg, Maris and Geus (2011), “from computer-assisted learning, to Intelligent Tutoring Systems, to open learning environments, technological advances have been used to reduce classroom constraints during learning and to adapt learning materials to the level of knowledge of individual students” (p. 1334). Over the years, major developments in technology have allowed educators to emerge computers into learning. As noted by Warschauer (1999), using computers for language learning and practice can be regarded as an essential part of the

learning rather than a special condition. Also, Egbert (2005) points out that “Computer Assisted Language Learning (CALL) means learners learning language in any context with, through, and around computer technologies” (p.4). On the other hand, with the integration of mobile computing technologies into the people’s lives, Mobile Assisted Language Learning (MALL) has been an issue that many researchers have investigated for many years. According to Traxler and Wishart (2011), learning can be enriched and facilitated by mobile devices in several ways. First of all, learners can achieve the goals of the changing world and the chances for learning and teaching can increase thanks to these devices. Secondly, mobile assisted learning may provide learners with authentic materials that are prepared by real purposes rather than teaching purposes. By this way, learners achieve the learning goals in a more meaningful way. Furthermore, learners may be aware of the context where they learn the language. Finally, language learning can be personalized related to learners’ interests and skills by the help of mobile devices. Another advantage of these devices is that learners may use them in any time or place they want. In this way, since learners do not have one specific place to learn, language learning process can be fostered. As mentioned before, with the development of the technology in terms of the easy Internet access, using mobile devices for educational purposes has increased gradually (Hwang & Tsai, 2011).

2.5. Pedagogical Framework of Mobile Assisted Language Learning

As noted by Patten et al. (2006), even though using mobile devices in language learning is beneficial in terms of many ways, it should be described by pedagogical considerations. For this reason, in order to benefit from mobile devices in language learning and teaching, pedagogical aspects for mobile learning are suggested for mobile learning. Four aspects are proposed: “integration of tools, pedagogical approaches, assessment techniques and teacher training” (Ozdamli, 2012, p. 928). Figure 3 illustrates the features of the mobile assisted language learning pedagogical framework.



*Figure 3. Key aspects of the mobile assisted language learning. Taken from Ozdamli, F. (2012). Pedagogical framework of m-learning. *Procedia- Social and Behavioral Sciences*, 31(0), 927-931*

In order to integrate these tools into language learning and teaching process, two ways are suggested. They can be provided as a supportive tool for instruction (Ktoridou & Eteokleous, 2005). Mobile devices can be made use of for different educational purposes like delivering the course content, assessing learners' piece of work, practicing language via mobile applications that provide learners with authentic materials, using educational games in the classroom environment, receiving peer feedback by sharing productions on blogs.

When it comes to pedagogical approaches, there are some approaches like blended learning, collaborative learning, constructivism that combine mobile devices with the language learning. These approaches apply online methods to language learning. By the help of this application, they aim to create active learners through student-centered instruction with mobile devices (Ozdamli, 2012).

2.6. Tablet Assisted Learning Environment

Since the portable devices become increasingly popular, new ways and strategies are integrated into language learning such as mobile learning and e-learning (Sharples, 2009). Tablet computers that are the type of mobile devices become popular among language teaching and learning educators because of its different practical functions like portability, appropriate screen size and connectivity (Chen, 2013). Amelink et al. (2012) also remarks that “the Tablet PC is a conventional notebook, with a keyboard for typing, that has the option to rotate and fold the screen so that a stylus can be used to make handwritten notes and drawings in a similar fashion to pen and paper” (p.3). Millions of tablets have been sold around the world and they have become popular with the Android-based tablets and the Apple iPads (Geyer & Felske, 2011). This popularity increased the application of tablet use for educational purposes by the help of many advantages like digital classroom resources that foster learning process (Kim & Frick, 2011).

The literature on using tablets for educational purposes has highlighted several benefits of it. The research conducted by Nguyen et al. (2015) with the students of higher education points out that use of tablets increases the learners’ learning experience. It is remarked that “mobile technologies have the potential to become productive learning tools in integrating contents into the social learning environment” (Nguyen et al., 2015, p.197). Another study which aims to show the pupils’ point of view to tablets as learning devices suggests that use of tablets motivates students. Falloon (2014) argues that teachers should monitor the process in which students interact with the technology and they should select the proper applications by taking educational purposes and the potential into consideration. The study conducted by Chen (2013) indicates the importance of the guidance of the teachers in a tablet-assisted teaching and learning environment. According to the result of this study, it is suggested that learners should be informed both in a technologic and a methodological way since some students do not have the enough knowledge about technology to improve the learning process. The study also concludes that students have a positive attitude towards the use of tablets because of their usability and effectiveness. Additionally, a study was

conducted by Lan, Sung, and Chang (2007) in order to point out the effect of using tablets in EFL context. They aimed to enhance peer collaboration in reading classes. The results of the study show that application of tablets has a positive effect on students' collaboration and also it reduces the learners' level of anxiety and increases their motivation. In addition to this, Amelink et al. (2012) examines the relationship between the use of tablets and the learning behavior of the engineering faculty students. The study reveals that when students make use of the tablets, their learning motivation to learn increases.

CHAPTER III

METHODOLOGY

In this chapter, the research design, population and sampling, data collection procedure and instruments, data analysis methods are presented in detail.

3.1. Research Design

The objective of this study is to develop students' listening comprehension skills and metacognitive awareness through metacognitive strategy training. In order to have a fuller understanding, a quantitative model is used in this study by the help of pre- and post-tests that are made use of for both the experimental and control groups. The study has an experimental design as Dörnyei (2007) points out experimental designs consists of the experimental group which receives special training and the control group which is a baseline in order to make comparison. At the beginning, so as to identify students' current level of listening and metacognitive awareness; listening test and Metacognitive Awareness Listening Questionnaire are carried out to both groups. Listening lessons are designed for the experimental group students by providing metacognitive strategies through activities that are prepared by the researcher accordingly. The implementation process is lasted five weeks. After the process, the students in both groups take listening exam and the Metacognitive Awareness Listening Questionnaire as post-tests.

3.2. Sample of the Study

The study is conducted at Atilim University founded in Ankara, Turkey. Since the medium of instruction is English, the students must score to at least 60 on the proficiency exam (APEX) that is prepared by the testing unit of the School of Foreign Languages in order to start to study at their faculties without attending the preparatory school. The students who cannot meet this English language requirement must attend preparatory school for one semester or two semesters according to their levels. Students attend the classes that are designed related to their levels (A1, A2, B1, B1+) according to Common European Framework of Reference for Languages. Students take English courses for 27 class hours per week.

The sample of this study consists of 35 intermediate level students who attend one year compulsory English course. There were 18 students in the experimental group and 17 students in the control group. The ages of the students ranged from 19 to 22. The majority of the students in both groups were male. There are 5 females in the experimental and 7 females in the control group.

3.3. Data Collection

Quantitative data instruments are used as instruments in this study. To examine the influence of implementation process on listening and metacognitive awareness, Listening Comprehension Pre-test (applied at the beginning of the study), Listening Comprehension Post-test (applied at the end of the study) and the Metacognitive Awareness Listening Questionnaire (MALQ) (applied at the beginning and at the end of the study, immediately after the listening comprehension pre- and post-tests) were used.

3.4. The Listening Comprehension Pre-test

The listening comprehension pre-test (Appendix 1) was applied at the third week of the term in order to identify the listening comprehension level of the students both in experimental and control groups. The students were provided with the test through their tablets, which enabled them to listen by putting on their headphones.

The pre-test was designed by the researcher by making use of a listening record which is according to the students' level from an academic listening book. The topic of the record is different customs and cultures. The students are required to answer 10 questions which consist of true-false and filling the blanks with one-word questions. The students listen to the record twice and they are expected to take notes so that they can answer the questions. The test takes almost 15 minutes. To enable the reliability of the pre-test, two colleagues who are attending ELT PhD program at Hacettepe University were consulted and questions were revised according to the feedback received and all the exam papers were marked by two different instructors so as to increase the consistency.

3.5. The Listening Comprehension Post-test

At the end of the five-week treatment, to highlight the differences between the experimental and the control group's listening comprehension levels, the listening comprehension post-test (Appendix 2) was provided by the researcher. The students carried out the test by listening with their headphones through their tablets. To examine the development of the experimental group students' listening comprehension level by the help of metacognitive strategy training, the same test was applied to both experimental and control groups. In order to increase the reliability of the test and the consistency of the results, the same methods were followed as in the pre-test. The test comprises of 10 questions including true-false and matching. The listening record of the test was selected from the same academic book. The students listen to the record twice and the test lasts 15 minutes.

3.6. Metacognitive Awareness Listening Questionnaire (MALQ)

To track students' metacognitive awareness over the process, another instrument named Metacognitive Awareness Listening Questionnaire (MALQ) (Appendix 3) was applied. It was developed by Vandergrift et al. (2006). Vandergrift (2006) states that the questionnaire "aims to elicit L2 listeners' perceived use of strategies while listening to spoken" (p.94). The MALQ is the tool that raises the awareness of the students for metacognitive instruction. It also makes the learning process more understandable for students. The MALQ can be used to check whether students are aware of the strategies or not. The questionnaire consists of five different factors in listening: planning and evaluation, problem solving, directed attention, mental translation, and personal knowledge. The factor of planning and evaluation is related to the items of 1, 10, 14, 20, 21 and they aim to find out whether learners are prepared for listening or not and how they evaluate their efforts of listening. The other factor of problem solving including items 5, 7, 9, 13, 17, and 19 reveals what students do when they do not understand. Directed attention factor is related to items 2, 6, 12, 16 and it shows the way learners focus and concentrate on the listening task. The other factor related to the items of 4, 11, and 18 is mental translation which intends to measure learners' ability of mental translation. Lastly, the items 3, 8, 15 related to personal knowledge aim to reveal the way students learn best and the difficulties they have in listening. In addition to this, the scale of answers of the MALQ was a 6-point Likert scale: 1= Strongly Disagree, 2= Disagree, 3=Slightly Disagree, 4= Partly Agree, 5= Agree, 6= Strongly Agree. The exploratory factor analysis that aims to indicate the effectiveness of five-factor model (problem-solving, planning and evaluation, translation, person knowledge, and directed attention) in the MALQ is carried out by Vandergrift et al. (2006). The analysis concludes that there is "a significant relationship between MALQ scores and actual listening behavior" of the learners (Vandergrift et al., 2006, p.449). That's why, MALQ can be made use of for both teaching process and research since it can be useful for self-assessment in terms of strategy use and metacognitive awareness in L2 listening. The MALQ can also be used "as a diagnostic or consciousness-raising tool" or

“to determine student awareness of the process of L2 listening and to assess the degree of self-regulated use of listening strategies, at a specific point in time or over a period of time” (Vandergrift et al., 2006, p.453).

3.7. Data Collection Process

At the beginning of the study, both the experimental and control groups' students took a listening test consisting of 10 questions as a pre-test in order to see their current levels. The topic of the listening record was chosen from the themes that they covered in the previous weeks. The pre-test was applied to both groups in the third week of the semester. In addition to the pre-test, to find out the students' current level of metacognitive awareness, Metacognitive Awareness Listening Questionnaire (MALQ) was conducted to the experimental and control groups simultaneously. After identifying students' current level of listening comprehension and metacognitive awareness, the metacognitive strategy training started. To achieve this, activities in accordance with the metacognitive strategies were developed by the researcher by employing the themes of the coursebook (Unlock 3 by Sabina Ostrowska, 2014) that is compulsorily used in the classroom into consideration. The implementation of the metacognitive training was planned in line with the pedagogical stages and underlying metacognitive processes suggested by Vandergrift and Tafaghodtari (2010). They proposed the strategy of planning and directed attention for the pre-listening stage that requires prediction and becoming familiar with the topic. For the first listening, selective attention, monitoring and evaluation strategies are suggested. When students listen to the provided listening material for the second time, in addition to the strategies that are used for the first stage, problem solving is added. In the last stage which requires reflection of the students, evaluation and planning are recommended. Table 4. summarizes the stages and processes mentioned:

Table 4

Stages of Listening Instruction and Underlying Metacognitive Processes

Pedagogical stages	Metacognitive processes
<i>Prelistening: Planning/predicting stage</i>	
1. After students have been informed of the topic and text type, they predict the types of information and possible words they may hear.	1. Planning and directed attention
<i>First listen: First verification stage</i>	2. Selective attention, monitoring and evaluation
2. Students verify their initial hypotheses, correct as required, and note additional information understood	
3. Students compare what they have understood/written with peers, modify as required, establish what still needs resolution, and decide on the important details that still require special attention.	3. Monitoring, evaluation, planning, and selective attention
<i>Second listen: Second verification stage</i>	Selective attention, monitoring, evaluation, and problem solving
4. Students verify points of earlier disagreement, make corrections, and write down additional details understood.	
<i>Reflection stage</i>	5. Evaluation, planning
4. Based on the earlier discussion of strategies used to compensate for what was not understood, students write goals for the next listening activity.	

Taken from Vandergrift, L., & Tafaghodtari, M. (2010). Teaching L2 learners how to listen does make a difference: An empirical study. *Language Learning*, 60(2), 470-97.

During the five-week study, the students in the experimental group receive listening metacognitive strategy instruction and apply them by the help of the activities designed accordingly. Listening strategies were introduced to the experimental group students explicitly by means of PPT slides (Appendix 4) prepared by the researcher at the beginning of the process. Then, as pre-listening stage, the topic of the video was presented and the teacher asked them to brainstorm about it. The students' background knowledge and awareness about the topic could improve by means of this. When the students become familiar with the topic of the listening record, the vocabulary items that were related to the topic were introduced with a short reading passage. After clarifying the meaning of the target words, before listening, the teacher wanted students to guess the information and the

possible words that they could hear related to the topic discussed. After they wrote down their predictions, they listened to the record for the first time and compared their notes with the information provided in the listening. As a next step, the students were asked to share their notes and ideas with their partners. The teacher also wanted them to find out the information that they needed to put more attention while they were listening for the second time. When the second listening finished, they were required to review their notes and answer the listening comprehension questions accordingly. As a following step, the teacher encouraged students to note down the strategies that they used while listening.

During the five-week process, the same steps that were described previously were followed during the lessons. For each lesson, metacognitive strategies were selected and appropriate activities were prepared for them to practice. Those strategies were introduced in each lesson and new strategies were integrated into the process gradually with the help of different listening tasks. Table 5 summarizes the five-week treatment of the experimental group.

Table 5

Five-Week Treatment of the Experimental Group

WEEK 1	Topic of the listening record	The metacognitive strategy focused	Pre-listening activities	Post-listening activities
	'Fear of flying'	-Planning/Predicting Directed attention Selective attention -Monitoring Auditory monitoring -Evaluation	-Brainstorming -Predicting the information and words	-Follow-up discussion -Answering comprehension questions
WEEK 2	Topic of the listening record	The metacognitive strategy focused	Pre-listening activities	Post-listening activities
	'Healthy lifestyles'	-Planning/Predicting Directed attention Selective attention -Monitoring Auditory monitoring -Evaluation	-Brainstorming -Practicing target words -Predicting the information and words	-Discussion -Making inferences about the record
WEEK 3	Topic of the listening record	The metacognitive strategy focused	Pre-listening activities	Post-listening activities
	'Historical finds'	-Planning/Predicting Directed attention Selective attention -Monitoring Auditory monitoring Comprehension monitoring Double-check monitoring -Evaluation	-Brainstorming -Predicting the information and words	-Discussion -Answering comprehension questions
WEEK 4	Topic of the listening record	The metacognitive strategy focused	Pre-listening activities	Post-listening activities
	'What makes a genius'	-Planning/Predicting Directed attention Selective attention -Monitoring Auditory monitoring Comprehension monitoring Double-check monitoring -Evaluation	-Brainstorming -Identifying the key words -Organizing the notes for prediction	-Answering comprehension questions -Summarizing the main ideas
WEEK 5	Topic of the listening record	The metacognitive strategy focused	Pre-listening activities	Post-listening activities
	'Secrets of the success'	-Planning/Predicting Directed attention Selective attention -Monitoring Auditory monitoring Comprehension monitoring Double-check monitoring -Evaluation	-Brainstorming -Identifying the key words -Organizing the notes for prediction	-Follow-up discussion -Answering comprehension questions -Summarizing the main ideas

When it comes to control group treatment, the students in this group were provided with the same listening tasks during the five-week process. They received the lessons with the

same pre-listening activities but they were not informed about what listening strategies were and how they developed and applied them while carrying out a listening task. Neither the teacher asked these students to predict any vocabulary and information before listening. The students listened to the record twice and answer the comprehension questions accordingly. They had the same post-listening activities without the use of listening strategies. Besides, the students were not asked to reflect their process that they went through while doing the listening task.

At the end of the treatment process that lasted five weeks, both the experimental and control group students took the same post-test consisting of 10 listening comprehension questions. Following the listening comprehension post-test, the MALQ was applied to both experimental and control groups one more time to identify their metacognitive awareness at the end of the five-week treatment.

3.8. Data Analysis

The results of the listening comprehension pre-test, post-test and Metacognitive Awareness Listening Questionnaire (MALQ) were analyzed by the SPSS 25.0 (Statistical Program of Social Sciences) program with descriptive statistics of frequency, percentage and mean. The results show the listening comprehension performance and the metacognitive awareness development of the participants in both experimental and control groups by the help of metacognitive strategy training. At the end of the analysis, the data are illustrated with tables.

CHAPTER IV

RESULTS AND DISCUSSION

In this chapter, findings obtained through Metacognitive Awareness Listening Questionnaire (MALQ) are presented. Then, the results of the pre- and post-tests are handled. Also, by the help of statistical analyses, the comparisons between the groups are demonstrated. Lastly, the effects of the metacognitive strategy training are discussed.

4.1. Results

This study aims to answer these research questions:

1. What are the listening comprehension levels of students in the experimental group that is taught by metacognitive strategies and the control group who receives traditional instruction?
2. Does the training of metacognitive strategies cause any differences between listening comprehension levels of students in the experimental group and control group?
3. Are there any differences between the students in the experimental group and control group in terms of metacognitive awareness?
4. Does the training of metacognitive strategies cause any differences between metacognitive awareness of the students in the experimental group and control group?

In order to find an answer to these questions, the experimental group was exposed to metacognitive strategies and the control group received the traditional instruction. At the

beginning and the end of the implementation process, both listening comprehension level and the metacognitive awareness of the students are compared.

4.2. Findings and Discussions about the Listening Comprehension Level of the Students

Research Question 1: What are the listening comprehension levels of students in the experimental group that is taught by metacognitive strategies and the control group who receives traditional instruction?

The first question aimed to highlight the differences between the experimental group that was provided with the metacognitive strategies and the control group instructed through traditional ways in terms of the listening comprehension levels. Before the implementation process, it was necessary to see that two groups were almost same in terms of their listening comprehension level. In order to point out this, the same pre-test was applied to both groups at the beginning of the treatment process. The number of the students in the experimental ($n=18$) and the control group ($n=17$) were 35 ($n=35$). The answers of the students were analyzed by means of SPSS 25.0 software. Table 6 shows the statistical analysis of the pre-test.

Table 6

Mean Rank Scores of the Experimental and Control Group for the Listening Comprehension Pre-Test

	Groups	N	X	Standard Deviation	Standard Error Mean	P
Pre-test Results	Experimental	18	5,72	2,7	,640	,449
	Control	17	4,88	2,4	,593	

Table 6 shows the number of the participants for each group, the arithmetic mean (pre-test scores out of 10), and the standard deviation and the statistical significance (p) that is obtained by the help of Paired Samples Test. The pre-test mean score of the experimental group is 5,72 out of 10 and the mean score of the control group is 4,88 out of 10. This

result shows that both groups' listening comprehension levels are close to each other at the beginning of the process because the difference is no statistically significant $p=449$ ($p > 0,05$).

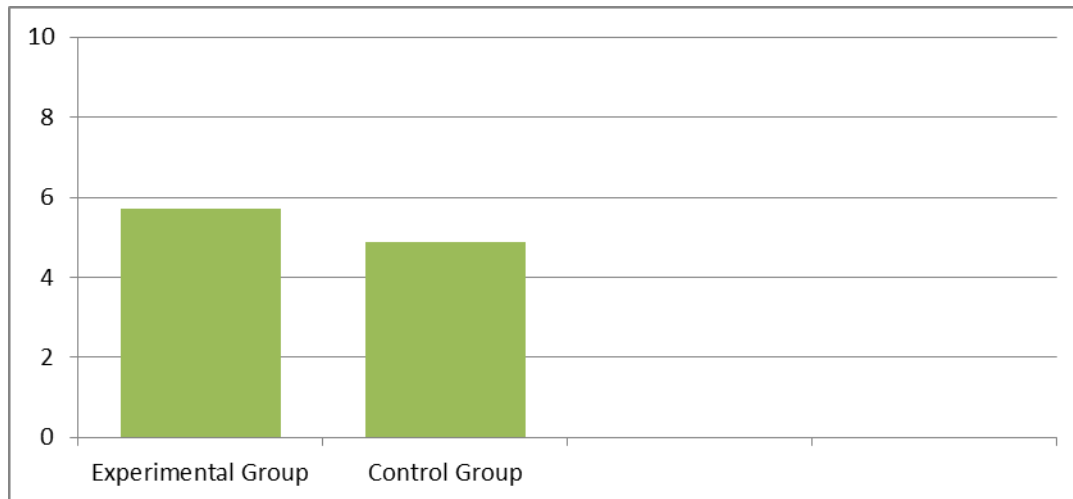


Figure 4. Mean scores of the experimental and the control groups' pre-test results

Figure 4 illustrates the mean scores of the experimental and the control groups' listening comprehension pre-test results. As can be seen, the mean score of the experimental group is slightly higher than the score of the control group. Because both groups' language level was accepted as B1 by the school administration, this result was unexpected.

Research Question 2: Does the training of metacognitive strategies cause any differences between listening comprehension levels of students in the experimental group and control group?

After the treatment process that lasted five weeks, in order to reveal the differences between the two groups in terms of their listening comprehension levels, the same post-test was administered to both groups. The results of the post-test were analyzed with the SPSS 25.0 software.

Table 7

Mean Rank Scores of the Experimental and Control Group for the Listening Comprehension Post-Test

	Groups	N	X	Standard Deviation	Standard Error Mean	P
Post-test Results	Experimental	18	5,94	1,5	,374	,884
	Control	17	4,94	2,0	,496	

As observed in Table 7, the mean score of the experimental group in the listening comprehension post -test is 5,94 out of 10 and the mean score of the control group is 4,94 out of 10. These mean difference score indicates that the students who were provided with metacognitive strategies for listening comprehension outperformed the students who received traditional listening comprehension instruction. In order to decide whether this difference is statistically significant, Paired Samples Test was used. The result shows that this improvement is not statistically significant because $p = ,884$ ($p > 0,05$).

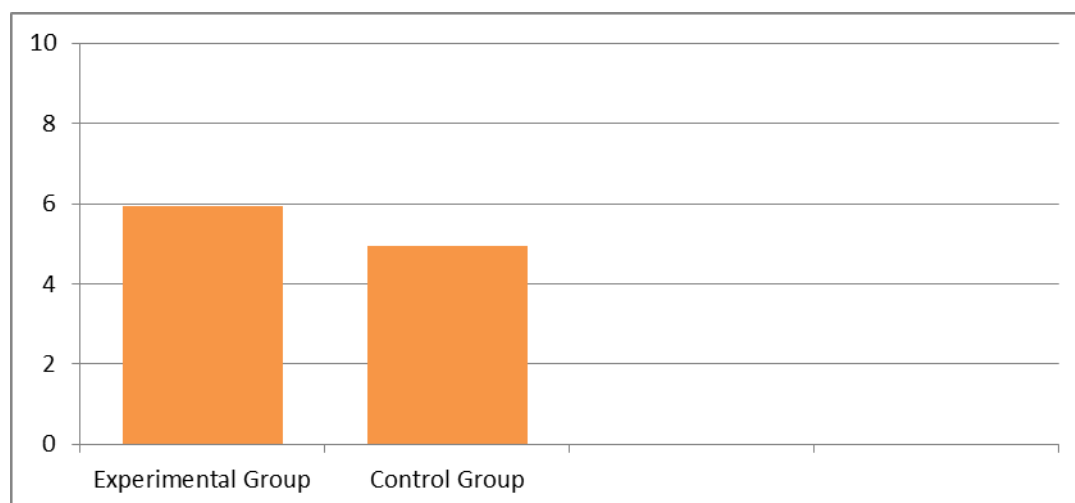


Figure 5. Mean scores of the experimental and the control groups' post-test results

As can be observed in Figure 5, the mean score of the experimental group students' post test results is a little higher compared to the control group students' results. In order to show the improvement of both groups, mean scores of the listening comprehension pre and post test results were analyzed and the results are indicated in Table 8.

Table 8

Pre and Post-Test Results of the Experimental Group

Experimental group	Mean	N	Standard deviation	Standard Error Mean
Pre-test	5,72	18	2,7	,64
Post-test	5,94	18	1,5	,37

As Table 8 shows, mean score of the experimental group's pre-test result is 5,72 while post-test mean score of the group is 5,94. Also, the pre-test standard deviation is 2,7 and the post-test standard deviation is 1,5. As can be seen clearly, listening comprehension mean score of the experimental group increased from 5,72 to 5,94 at the end of the five-week treatment.

Table 9

Statistical Difference between Pre and Post- test Listening Comprehension Scores of the Experimental Group (Paired Samples Test)

	Mean	N	Standard deviation	t	p
Pre-test	5,72	18	2,7	-,416	0,017
Post-test	5,94	18	1,5		

As indicated in Table 9, According to the Paired Samples Test, there is a statistically significant different between the pre-test and post-test scores of the experimental group students. The significance level is $p = 0,017$ ($p < 0,05$). This reveals that there is an improvement in the listening comprehension means score of the experimental group by the help of metacognitive strategy training.

4.3. Findings and Discussions about the Metacognitive Awareness of the Students

Research Question 3: Are there any differences between the students in the experimental group and control group in terms of metacognitive awareness?

Prior to the five-week process of the metacognitive strategy training, in order to highlight the metacognitive awareness of the students both in the experimental and the control groups, Metacognitive Awareness Listening Questionnaire (MALQ) was applied at the beginning of the process. The students answered the 21 Likert scale items in the

questionnaire using a 6-point scale ranging from 1 (strongly disagree) to 6 (strongly agree). To indicate the metacognitive awareness of the students, there are five factors in the questionnaire: Planning and Evaluation, Directed Attention, Personal Knowledge, Mental Translation and Problem Solving. The answer of the students in the questionnaire were analyzed by means of the SPSS 25.0 program

Table 10

Analysis of the MALQ Responses of the Experimental and the Control Group

FACTORS	Groups	Item N	Max	x	Standard deviation	P
Planning and Evaluation	Experimental	5	30	25,55	5,6	0,830
	Control	5	30	25,52	2,4	
Directed Attention	Experimental	4	24	19,50	5,2	0,285
	Control	4	24	18,23	3,1	
Personal Knowledge	Experimental	3	18	11,27	4,5	0,156
	Control	3	18	10,88	2,4	
Mental Translation	Experimental	3	18	15,05	2,4	0,416
	Control	3	18	14,00	3,1	
Problem Solving	Experimental	6	36	12,88	1,8	0,931
	Control	6	36	11,16	3,0	

To reveal the metacognitive awareness level of the students in both groups before the treatment process, the results of the MALQ were analyzed by taking the five factors of the metacognitive knowledge into consideration. The number of items in each factor and the maximum score that participants can get from each category are presented in Table 10. Also, the table indicates the arithmetic mean scores of each group (x), standard deviations of the scores and statistical significance (p) that was obtained through the employment of the Paired Samples Test. The arithmetic means of the scores for planning and evaluation factor are 25,55 for the experimental group and 25,52 for the control group out of 30. Although the experimental group's score is higher than the control group's score, this is not statistically meaningful since $p=0,830$ ($p > 0,05$). For directed attention, the mean score of the experimental group is 19,50 and it is 18,23 for the control group. This difference is not meaningful because $p=0,285$. Also, the arithmetic means of the experimental and control groups' MALQ responses to personal knowledge (11,27 and 10,88) and mental translation

(15,05 and 14,00) did not indicate any statistically meaningful difference because $p=0,156$ and $p=0,416$ ($p > 0,05$) respectively. Lastly, the arithmetic mean of the experimental group's responses to problem solving is 12,88 and this score is 11,16 for the control group's responses. According to the analysis of these scores, it can be concluded that there is not a statistically meaningful difference since $p=0,931$. In the light of these results, even though the mean scores of the experimental group students are slightly higher than the control group students' scores, it can be remarked that the awareness level of the students in both groups were similar at the beginning of the five-week implementation process.

Research Question 4: Does the training of metacognitive strategies cause any differences between metacognitive awareness of the students in the experimental group and control group?

To investigate the effect of the metacognitive strategy training on the metacognitive awareness of the students, at the end of the implementation process, Metacognitive Awareness Listening Questionnaire (MALQ) was administered to the students in both groups. The results of the participants were analyzed by the help of the SPSS 25.0 program.

Table 11

Analysis of the Pre and Post MALQ Responses of the Experimental Group

FACTORS	Experimental Group	Item N	Max	X	Standard deviation	Mean difference	p
Planning and Evaluation	Pre-test	5	30	25,55	5,6	-0,66	,000
	Post-test	5	30	26,23	2,4		
Directed Attention	Pre-test	4	24	19,50	5,2	-0,88	,008
	Post-test	4	24	20,03	3,6		
Personal Knowledge	Pre-test	3	18	11,27	4,5	-1,1	,000
	Post-test	3	18	12,27	4,2		
Mental Translation	Pre-test	3	18	14,22	3,1	-0,611	,606
	Post-test	3	18	14,83	2,2		
Problem Solving	Pre-test	6	36	11,16	3,0	-1,1	,003
	Post-test	6	36	12,27	2,2		

Table 11 shows the mean scores of the pre and post responses of the experimental group to the MALQ. The table includes the five factors of the metacognitive knowledge, the number

of items in each factor, the maximum score that can be obtained for each category, standard deviation and statistical significance. Pre and post responses of the experimental group for planning and evaluation indicated an increase. Because the significance level is ,000 ($p < 0,05$), it can be remarked that there is a statistically significant difference between pre- and post-responses of the experimental group. While the mean score for the directed attention was 19,50, it reached 20,03 at the end of the process. Also, this increase is statistically significant since $p = 0,008$ ($p < 0,05$). The arithmetic means of the responses to personal knowledge (11,27-12,27) and problem solving (11,16-12,27) increased throughout the process. The differences for the both factors are statistically significant since $p = ,000$ and $p = ,003$ ($p < 0,05$) respectively. On the other hand, the mean scores of the mental translation did not indicate any statistically significant difference as $p = ,606$ for the experimental group. When these results are taken into consideration, it can be claimed that metacognitive strategy training mostly improves the awareness of the experimental group students. To compare the difference between the experimental and the control group students at the end of the process, control group students' pre and the post responses to the MALQ were analyzed.

Table 12

Analysis of the Pre and Post MALQ Responses of the Control Group

FACTORS	Control Group	Item N	Max	X (Pre-test)	Standard deviation	Mean difference	P
Planning and Evaluation	Pre-test	5	30	25,52	2,4	0,11	,163
	Post-test	5	30	25,41	2,4		
Directed Attention	Pre-test	4	24	18,23	3,1	-0,11	,768
	Post-test	4	24	18,35	3,0		
Personal Knowledge	Pre-test	3	18	10,88	2,4	-0,41	,168
	Post-test	3	18	11,29	2,3		
Mental Translation	Pre-test	3	18	14,00	3,1	0,117	,824
	Post-test	3	18	13,88	2,6		
Problem Solving	Pre-test	6	36	12,82	1,7	0,058	,332
	Post-test	6	36	12,88	1,8		

To reveal the metacognitive awareness level of the control group students, the same analysis including five factors of the metacognitive knowledge, the number of items,

maximum scores, standard deviation, the arithmetic means of the scores and statistical significance was carried out. As Table 12 makes it clear, the mean scores of the responses to the directed attention (18,23-18,35) , personal knowledge (10,88-11,29) and the problem solving (12,82-12,88) indicate an increase, but these differences are not statistically significant because $p=,768$, $p=,168$, $p=,332$ ($p>0,05$) respectively. In addition, the mean scores of the responses to the planning and evaluation and mental translation decreased at the end of the five-week treatment process. Lastly, to see whether there is a statistically significant difference between the experimental and control groups' pre and post responses of the MALQ, Paired Samples Test was administered and the results are presented in Table 13.

Table 13

Statistical Difference Between Post Responses of the Experimental and the Control Groups

FACTORS	Groups	Item N	Max	X (Post)	Standard deviation	p
Planning and Evaluation	Experimental	5	30	26,23	2,4	0,880
	Control	5	30	25,41	2,4	
Directed Attention	Experimental	4	24	20,03	3,6	0,735
	Control	4	24	18,35	3,0	
Personal Knowledge	Experimental	3	18	12,27	4,2	0,897
	Control	3	18	11,29	2,3	
Mental Translation	Experimental	3	18	14,83	2,2	0,845
	Control	3	18	13,88	2,6	
Problem Solving	Experimental	6	36	12,27	2,2	0,647
	Control	6	36	12,88	1,8	

The analysis of the post responses of the MALQ indicates that the mean scores of the experimental group for four factors are higher than the control group's scores. For planning and evaluation, the mean score of the experimental group is 26,23 and the score is 25,41 for the control group. Also, the arithmetic mean score of the responses to directed attention is 20,03 for the experimental and 18,35 for the control group. In addition, while the mean score of the personal knowledge is 12,27 for the experimental group, this score is 11,29 for the control group. Experimental group's mental translation mean score is 14,83, the control group's score is 13,88 for this factor. On the other hand, the control group has the higher

score for problem solving than the experimental group. While the arithmetic score of the control group is 12,88, this score is 12,27 for the experimental group. The differences between the experimental and the control groups mean scores are not statistically significant because statistical significance values (p) are $>0,05$.

To conclude, the results of the pre and post listening comprehension exams' results indicate that the experimental group outperformed the control group. In other words, when the statistically significant difference between the pre- and post-test results of the experimental group students are taken into consideration, it can be claimed that listening performance of the experimental group improved by the help of metacognitive strategy training. Additionally, the metacognitive awareness of the students who received metacognitive strategy training increased at the end of the process. However, this improvement is slight in the factors of Planning and Evaluation, Personal Knowledge, Directed Attention and Mental Translation. This growth in terms of the metacognitive awareness was not found statistically significant. The students in the control group who received traditional instruction did not demonstrate significant difference in terms of the metacognitive awareness.

CHAPTER IV

CONCLUSION

In this chapter of the study, a brief summary of the study is provided. Then, conclusions gathered from the findings are presented. Finally, suggestions for the further studies related to this topic are handled.

4.1. Summary of the Study

The purpose of the study was to investigate the effects of the metacognitive strategy training in a tablet-assisted learning environment on listening comprehension and the metacognitive awareness levels of the students who studied at Atılım University School of Foreign Languages, Basic English Department. Two groups of students were chosen as the experimental and control groups randomly. The proficiency level of the 35 participants was B1 which is accepted by the school administration. First of all, listening comprehension pre-test was prepared by the researcher to determine the current levels of the both groups before the treatment process. In addition to this, so as to identify the metacognition levels of both groups, MALQ was applied before the training process. Then, the students in the experimental group were exposed to metacognitive strategies for listening and they were provided with the listening activities prepared by the researcher to improve their metacognitive awareness and the listening comprehension levels. The students in the control group received their lessons in the traditional way. After the training process that

lasted five weeks, listening comprehension post-test and the MALQ were applied to both groups to reveal their listening comprehension and metacognitive awareness levels. The results obtained from the pre and post tests and MALQ were analyzed to compare the experimental and control groups.

The first research question aimed to reveal the current listening comprehension levels of the students. In order to achieve this, listening comprehension pre-test was applied to both groups. The results indicate that the levels of the both groups were similar and there is not any statistically significant difference between them even though the mean score of the experimental group is slightly higher than the control group.

The purpose of the second question was to find out the effects of the metacognitive strategy training on the listening comprehension levels of the students. For this, listening comprehension post-test was employed to both groups and the results were compared by also taking the pre-test results into consideration. In the light of these results, it was concluded that there was a statistically significant difference between the pre and post-test results of the experimental group. The results also showed that metacognitive strategy training and the activities designed accordingly improve the listening comprehension levels of the students who were in the experimental group. On the other hand, the difference between the post-test results of both groups was not statistically significant although the experimental group students had higher mean scores.

The third question sought to identify the metacognitive awareness levels of the both groups before the five-week treatment process. To do this, MALQ created by Vandergrift et al. (2006) was used. In the second week of the semester, the students in each group took the test. The MALQ has five distinct factors (Planning and Evaluation, Directed Attention, Personal Knowledge, Mental Translation and Problem Solving) and the results were analyzed by taking these factors into consideration and they were presented to make comparisons between the two groups.

The responses of the students indicate that the experimental and the control group students had similar metacognitive awareness levels since the difference between them was not found to be statistically significant.

With the third question, the effect of the metacognitive strategy training on students' metacognitive awareness levels was aimed to be revealed. To expose this, the MALQ was employed to both groups. Pre and post responses of the students in both groups were analyzed and the comparisons were made between the levels of the students before and after the training process. The results showed that metacognitive strategy training improved the experimental group students' metacognitive awareness levels in four factors: Planning and Evaluation, Directed Attention, Personal Knowledge, Mental Translation. Although the mean scores of the experimental group for problem solving indicated an increase after the process, the control group students had a higher score for this factor. In addition, it was concluded that the difference between the pre and post responses of the control group was not found to be statistically significant; the same difference for the experimental group was defined as statistically significant. According to these results, it can be noticed that the metacognitive strategy training affected the experimental group students' metacognitive awareness levels in a positive way. Despite the difference between the post scores of the experimental and the control group which was not found statistically significant, the students who benefited from the metacognitive strategy training had higher scores in terms of metacognitive awareness.

When all answers to the research questions are taken into consideration, it can be claimed that metacognitive strategy training has positive effects on students listening comprehension and metacognitive awareness levels. Since the students become more aware of the strategies that they use throughout a listening task, their listening comprehension levels can improve. Therefore, it should be admitted that metacognitive strategy training should be an indispensable part of the listening lessons.

4.2. Conclusion and Implications

Listening is one of the challenging skills for most of the second language learners. This problem is also observed among university students who attend preparatory schools. Some of the common problems related to listening skill are comprehending vocabulary, pronunciation of the speaker or the speed of the listening records. Most importantly, students do not know what they should do when they encounter one of these problems while carrying out a listening task. According to Goh (2008), when learners are not able to complete a listening task successfully, they may become anxious. They also do not know the way they listen to when they receive an input (Vandergrift, Goh, 2012). Therefore, many learners do not know how to practice listening even though they focus on it. Since they are unable to control their learning process, they cannot use strategies during the act of listening. In order to achieve their learning goals of listening, the only way they apply is to listen to an input more than once. Because students' strategies are not sufficient to comprehend a listening material, they become unmotivated and passive. As Graham (2004) suggests, this problem is due to the students' low perception of their own abilities in the listening skills. To address the learners' needs and overcome these problems, rather than more listening materials Students need guidance and support in terms of strategy training when they tackle with a difficulty during the listening process. There are many studies which support the relationship between the strategy use and the success of listening (Vandergrift, 1997; Yang, 2009; Vandergrift & Tafaghodtari, 2010). Therefore, learners are required to understand what processes that they use while listening. In other words, learners should be instructed about metacognition which means "the act of thinking about thinking, or the ability of learners to control their thoughts and regulating their own learning" (Vandergrift, Goh, 2012, p.4). Metacognition has a crucial role in learning to listen and it improves thinking and comprehension (Wenden, 1998).

This study aimed to investigate the effects of metacognitive strategy training on preparatory school students at Atılım University who received education in a tablet-assisted learning environment. To achieve this, the students were exposed to metacognitive

strategy training and the materials designed by the researcher. According to the results of the MALQ and pre and post listening tests that were applied at the beginning and at the end of the treatment process, it was concluded that implementation of the metacognitive strategies affects experimental group students' listening performance and metacognitive awareness in a positive way as it was expected. The strategies were selected according to the materials provided. The strategies were presented explicitly and a new strategy was added to each lesson according to the content of the listening material. In line with Vandergrift's (2004) pedagogical cycle, all the strategies presented (planning/predicting, directed attention, monitoring, evaluation and problem identification) were repeated during the five-week process. Even though the difference between the experimental and the control group was not found to be statistically significant in terms of the metacognitive awareness, the experimental group students' awareness level improved and this growth was statistically significant compared to the pre results of the MALQ. Also, during the class hours, it was noticed that the students started to be more aware of their learning process and had a tendency to use different strategies when they had any difficulties while listening.

Thus, this study attempts to contribute to the literature suggesting the benefits of the metacognitive strategy training in improving the listening skill. Additionally, this study was carried out in a tablet-assisted learning environment. During the implementation process, the learners put their headphones while they listened to the materials provided via their tablets. This tablet integrated environment created an opportunity for the students to listen to the materials without any outside interruption. On the other hand, even though the students who benefited from the metacognitive strategies outperformed the control group students, some of the test results were not found to be statistically significant. This may be due to the duration of the study (five weeks) or the number of participants (n=35).

To conclude, based on the findings of the present study, it can be claimed that use of the metacognitive strategies enhances the listening skill and makes students more aware of their learning processes. Students are able to evaluate their learning and the problems that

they encounter while learning and most importantly by the help of metacognitive strategy training they “know what to do when they do not know what to do” (Anderson, 2002, p.2).

4.3. Suggestions for Future Research

As the conclusions drawn from the study show, metacognitive strategy training has an effective role in listening skill. However, this study has some limitations. One of the main limitations of the study was duration. The treatment process lasted five weeks because of the standard syllabus of the course. Further studies could be done over a longer course of a time. This short period of time was not enough for students to become aware of their cognitive processes completely. Another limitation was the number of participants ($n=35$). Despite some of the differences which were obtained from the results of the pre and post-test, the small number of participants may not be enough to make generalizations in terms of the effectiveness of the metacognitive strategy training on preparatory school learners who use tablets rather than traditional hardcopy course books in language learning. Further research could be conducted with a larger sample size. As another suggestion, in addition to the Metacognitive Awareness Listening Questionnaire (MALQ), interview sessions should be carried out to collect data about the metacognitive awareness of the learners. Finally, although using tablets has many advantages in language classrooms, it may distract some students from concentrating on the instructions provided.

REFERENCES

- Amelink, C. T., Scales G., & Tront, J. G. (2012). Student use of the tablet pc: impact on student learning behaviors. *Advances in Engineering Education*, 3(1), 1–17.
- Anderson, J. R. (2015). *Cognitive psychology and its implications* (8th ed.). New York: Worth.
- Anderson, N. J. (2002). The role of metacognition in second language teaching and learning. *ERIC Digest*, 5, 3-4.
- Byrnes, H. (1984). The role of listening comprehension: A theoretical base: *Foreign Language Annals*, 17, 317-329.
- Celce, Murcia, M., & Olshtain, E. (2000). *Discourse and context in language teaching: A guide for language teachers*. Cambridge: Cambridge University.
- Chen, X. B. (2013). Tablets for informal language learning: Student usage and attitudes. *Language Learning & Technology*, 17(1), 20-36.
- Chen, Y. (2005). Barriers to acquiring listening strategies for EFL learners and their pedagogical implications. *TESL-EJ*, 8(4), 1-5.
- Dörnyei, Z. (2007). *Research methods in applied linguistics: quantitative, qualitative and mixed methodologies*. Oxford: Oxford University.
- Esmaeili, Z., Taki, S., & Rahimian, Y. (2017). EFL learners' metacognitive strategy use in academic listening tasks. *Journal of Applied Linguistics and Language Research*, 4(3), 254-268.
- Field, J. (2008). *Listening in the Language Classroom*. New York, Cambridge University, 105-125.

- Flavell, J.H. (1976). Metacognitive aspects of problem solving. In L. B. Resnick (ed.), *The nature of intelligence* (p. 231-35), (Hillsdale, NJ: Erlbaum).
- Geyer, M., & Felske, F. (2011). Consumer toy or corporate tool: The iPad enters the workplace. *Interactions*, 18, 45–49.
- Gonen, M. (2009). The relationship between FL listening anxiety and FL listening strategies: the case of Turkish EFL learners. *Proceedings of the 5th WSEAS/IASME International Conference on Educational Technologies*, 44-49.
- Goh, C. (2008). Metacognitive instruction for second language listening development: Theory, practice and research implications. *RELS Journal*, 39, 188-213.
- Goh, C., & Taib, Y. (2006). Metacognitive instruction in listening for young learners. *ELT Journal*, 60(3), 222-32.
- Graham, S. (2004). Giving up on modern foreign languages? Students' perceptions of learning French. *Modern Language Journal*, 88(2), 171–191.
- Graham, S., & Macaro, E. (2008). Strategy instruction in listening for lower intermediate for lower-intermediate learners of French. *Language Learning*, 58(4), 747-783.
- Hwang, G. J., & Tsai, C. C. (2011). Research trends in mobile and ubiquitous learning: A review of publications in selected journals from 2001 to 2010. *British Journal of Educational Technology*, 42, E65–E70. doi:10.1111/j.1467-8535.2011.01183. x. *International Education Studies*. 2(4), 134–139.
- Katrancı, M., & Yangın, B. (2013). Effects of the metacognitive strategy training on students' listening comprehension levels and attitudes toward listening. *Adıyaman University Journal of Institute of Social Sciences Special Issue on Teaching Turkish Language*, 6(11), 734-771.
- Kim, K.-J., & Frick, T. W. (2011). Changes in student motivation during online learning. *Journal of Educational Computing Research*, 44(1), 1–23.

- King, A. (1991). Improving lecture comprehension: effects of a metacognitive strategy. *Applied Cognitive Psychology*, 5, 331-346.
- Ktoridou, D. & Eteokleous, N. (2005). Adaptive m-learning: technological and pedagogical aspects to be considered in Cyprus tertiary education. *Recent Research Developments in Learning Technologies*, 1, 1-8.
- Lan, Y.-J., Sung, Y.-T., & Chang, K.-E. (2007). A mobile-device-supported peer-assisted learning system for collaborative early EFL reading. *Language Learning & Technology*, 11(3), 130-151.
- Liu, X.L., & Goh, C. (2006). Improving second language listening: awareness and involvement. In T.S.C. Farrell (ed.), *Language teacher research in Asia* (p. 91-106), (Alexandria, VA: TESOL).
- Lynch, T. & Mendelsohn, D. (2002). Listening. In N. Schmitt (Ed.), *An introduction to applied linguistics* (p. 193-210).
- Mendelsohn, D. J. (1994). *Learning to Listen: A strategy-based approach for the second language learner*. San Diego: Dominie.
- Meyer, R. (1984). Listen my children, and you shall hear. *Foreign Language Annals*, 17, 343-344.
- Morley, J. (1999). Current perspectives on improving aural comprehension. *ESL Magazine*, 2(1), 16-19.
- Murphy, J. M. (1985). *An investigation into the listening strategies of ESL college students* (ERIC Document Reproduction Service No. ED27875).
- Nguyen, L., Barton, S. M., & Nguyen, L. T. (2015). iPads in higher education – Hype and hope. *British Journal of Educational Technology*, 46(1), 190–203.
- Nunan, D., & Miller, L. (Eds.) (1995).. *New ways in teaching listening*. Washington DC: TESOL.

- Osada, N. (2004). Listening comprehension research: A brief review of the past thirty years. *Dialogue*, 3, 53-66.
- Ozdamli, F. (2012). Pedagogical framework of m-learning. *Procedia- Social and Behavioral Sciences*, 31(0), 927-931.
- Ozturk, M. (2013). The effects of foreign language learning strategies on student success. *Seljuk University Journal of Faculty of Letters*, 30, 111-126.
- Paris, G., & Winograd, P. (1990). How metacognition can promote academic learning and instruction. In B. F. Jones & L. Idol (Eds.), *Dimensions of thinking and cognitive instruction*, 15–51.
- Patten, B., Sa´nches, I. A., & Tangney, B. (2006). Designing collaborative, constructivist and contextual applications for handheld devices. *Computers and Education*, 46, 294–308. *Review*, 58, 555-575.
- Richards, J. C. (1985). Listening comprehension: Approach, design, and procedure. In J. C. Richards, *The context of language teaching*, 189-207. Cambridge: Cambridge University.
- Rost, M. (2002). *Teaching and researching listening*. London: Longman.
- Sandberg, J., Maris, M., & Geus, de, K. (2011). Mobile English learning: An evidence-based study with fifth graders. *Computers & Education*, 57, 1334-1437.
- Sharples, M. (2009). Methods for evaluating mobile learning. In G. Vavoula, N. Pachler, & A. Kukulska-Hulme (Eds.), *Researching mobile learning: frameworks, tools and research design*, 17–39. Oxford, UK: Peter Lang.
- Sharples, M., Taylor, J., & Vavoula, G. (2010). *A theory of learning for the mobile age*. Wiesbaden: Springer. *ELT Journal*, 53, 168–176.
- Traxler, J., & Wishart, J. (2011). *Making mobile learning work: Case studies of practice*. Bristol: ESCalate, HEA Subject Centre for Education, University of Bristol. Retrieved from <http://escalate.ac.uk/8250>.

- Vandergrift, L. & Goh, C.M. (2012). *Teaching and learning second language listening: metacognition in action*. New York: Routledge.
- Vandergrift, L. (1993). *The comprehension strategies of second language (French) listeners*. (Unpublished dissertation). University of Alberta, Canada.
- Vandergrift, L. (1997). The comprehension strategies of second language (French) listeners: A descriptive study. *Foreign Language Annals*, 30, 387-409.
- Vandergrift, L. (1999). Facilitating second language listening comprehension: Acquiring acquiring successful strategies. *ELT Journal*, 53, 168-76.
- Vandergrift, L. (2002). 'It was nice to see that our predictions were right': Developing metacognition in L2 listening comprehension. *Canadian Modern Language Review* 58, 555-575.
- Vandergrift, L. (2004). Listening to Learn or Learning to Listen? *Annual Review of Applied Linguistics*, 24, 3-25.
- Vandergrift, L. (2006). The metacognitive awareness listening questionnaire: Development and validation. *Language Learning*, 56(3), 1-8.
- Vandergrift, L., & Tafaghodtari, M. (2010). Teaching L2 learners how to listen does make a difference: An empirical study. *Language Learning*, 60(2), 470-97.
- Veenman, M. V. J., B. H. A. A. Van Hout-Wolters and P. Afflerbach. (2006). Metacognition and learning: Conceptual and methodological considerations. *Metacognition Learning*, 1, 3-14.
- Wallace, M. P. (2012). Searching for a new approach to listening. *Accents Asia*, 5(1), 8-22.
- Wang, W. Y. (2002). *Effects of gender and proficiency on listening comprehension strategy use by Taiwanese EFL senior high school students: A case from Changhua*. Master's Thesis. National Changhua University of Education, Changhua, Taiwan.

- Warschauer, M. (1999). *Electronic literacies: Language, culture, and power in online education*. London: Routledge.
- Wenden, A. (1998). Metacognitive knowledge and language learning. *Applied Linguistics*, 19, 515–537.
- Yang, C. (2009). A study of metacognitive strategies employed by English listeners. *International Education Studies*, 2(4), 134-139.
- Young M. Y. C. (1997). A serial ordering of listening comprehension strategies used by advanced ESL learners in Hong Kong. *Asian Journal of English Language Teaching*, 1, 35-53.

APPENDICES

Appendix 1. Listening Comprehension Pre-Test

Transcript of the pre-test

In many countries around the world eating is a social event. Food allows people to get together to spend time with family or friends or even to chat with co-workers outside of the office. However eating habits can be very different. In countries around the world in South Korea. Koreans often follow certain cultural customs when they eat or dine at home. For instance when younger people pass food or pour drinks for older people they often use two hands. It can be rude to use just one hand in Korea. However it's not a custom for people to pass food with two hands. In Western countries also when Koreans eat out they usually choose one meal for the whole table. But in western countries people usually order separate meals on their own individual plates and for people who follow a vegetarian diet like me. This is hard when the main course is meat in Italy. Meal times are also social events. Although there are usually fewer cultural customs to follow. People get together with family friends and guests for meals at home. For instance Sunday lunch in Italy is an important tradition that takes several hours. In many English speaking countries lunch is usually less than an hour. However Sunday lunch in Italy can go from noon until 4:00 in the afternoon. People often serve food using traditional or old family recipes. The long meal gives families and friends a chance to talk and share stories while enjoying a great meal and of course it gives people a chance to try many different types of foods. Now these are just two interesting examples. There are many different eating habits and customs around the world that you will learn about this semester. It's also important to remember that there are also many individual differences. Not all people in a single country follow the same customs. Finally I just want to say that I'm excited about this semester. You're going to be experts in food and culture by the end of it.

1. Listen to the lecture and complete the statements with ONE word for each blank.

- 1) The speaker describes eating as a/an _____ .
- 2) Koreans have many _____ during a meal at home.
- 3) In Italy, Sunday lunch is a/an _____ and it takes several hours.
- 4) A long meal allows families and friends to _____ and _____ while enjoying together.

2. Listen again. Decide if the statements are true (T) or false (F).

- 1) Eating habits show some similarities in countries around the world. _____
- 2) Passing food with two hands can be rude in the Western countries. _____
- 3) Koreans prefer to eat one meal when they eat in a restaurant. _____
- 4) Unlike Koreans, Italian people have many customs to follow. _____
- 5) People who live in English speaking countries do not spend more than an hour for lunch. _____
- 6) Italian people serve their food by using traditional recipes. _____

Appendix 2. Listening Comprehension Post-Test

Transcript of the post-test

Okay. Before tonight's run, I want to talk about what we should be eating when we're training for a marathon. It's essential to consume a lot of carbohydrates to boost our energy levels. These carbohydrates ought to be in good carbohydrates from whole grains, fresh and dried fruit and vegetables. So if you like fast food, it's time to give it up until after the race.

Well, I've got celiac disease, which means that I must eat food that contains gluten. If I don't want to get a bad stomach. Gluten is found in wheat, so I can't easily digest bread, cake, pastries, pizzas and things like that. Only 1 percent of the population has this problem. But because gluten free diets have recently become fashionable, it's easy to find lots of gluten free products and I don't have to look hard for them at my local supermarket. In my opinion, diets are silly. There are so many strange ones where, for example, you don't eat any carbohydrates. If you want to lose weight, you must simply eat less and exercise more. I was very inactive for years and consumed large quantities of unhealthy processed food. Not surprisingly, I was overweight. Last summer, I started doing exercise and I visited my doctor who told me I had to reduce my intake of unhealthy meals. The result? I have lost 17 kilos in six months.

Technology in the form of smart watches or apps for smartphones can help us control our weight by telling us how many calories we have consumed during the day. We can also use these devices to scan food products when we go shopping to find out about the nutrients in them and where the ingredients were produced. This sort of thing is really going to help people be healthier.

1. Listen to the four people talking about food. Match the speakers (1-4) with what they say (A-E). There is one extra sentence.

Speaker 1 _____

Speaker 2 _____

Speaker 3 _____

Speaker 4 _____

- A. I have changed my lifestyle by making an effort to change it.
- B. We can't expect technology to help us to lose weight; it all depends on our decision.
- C. Technology is a positive tool, helping us to be healthy.
- D. There is one substance which will help our bodies store the power they need for physical exercise.
- E. I can easily find products that help me avoid health problems.

2. Listen to the record again and write T for true or F for false for each statement.

1. Carbohydrates from fast-food increase the energy level before a marathon. _____
2. Gluten-free products can be found easily even in a local supermarket. _____
3. Consuming lots of processed food is the reason of being inactive. _____
4. Reducing the total intake of meals is a way of losing weight. _____
5. Technology helps us to lose weight by telling what we eat. _____
6. Smartwatches or apps for smartphones can be used to see the ingredients of a product.

Appendix 3. Metacognitive Awareness Listening Questionnaire (MALQ)

The statements below describe some strategies for listening comprehension and how you feel about listening in the language you are learning. Do you agree with them? This is not a test, so there are no “right” or “wrong” answers. By responding to these statements, you can help yourself and your teacher understand your progress in learning to listen.

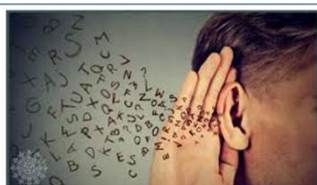
Please indicate your opinion after each statement. Circle the number which best shows your level of agreement with the statement. For example:

	Strongly disagree	Disagree	Slightly disagree	Partly agree	Agree	Strongly agree
I like learning another language	1	2	3	4	5	6
1. Before I start to listen, I have a plan in my head for how I am going to listen.	1	2	3	4	5	6
2. I focus harder on the text when I have trouble understanding.	1	2	3	4	5	6
3. I find that listening is more difficult than reading, speaking, or writing in English.	1	2	3	4	5	6
4. I translate in my head as I listen.	1	2	3	4	5	6
5. I use the words I understand to guess the meaning of the words I don't understand.	1	2	3	4	5	6
6. When my mind wanders, I recover my concentration right away.	1	2	3	4	5	6
7. As I listen, I compare what I understand with what I know about the topic.	1	2	3	4	5	6
8. I feel that listening comprehension in English is a challenge for me.	1	2	3	4	5	6
9. I use my experience and knowledge to help me understand.	1	2	3	4	5	6
10. Before listening, I think of similar texts that I may have listened to.	1	2	3	4	5	6
11. I translate key words as I listen.	1	2	3	4	5	6
12. I try to get back on track when I lose concentration.	1	2	3	4	5	6
13. As I listen, I quickly adjust my interpretation if I realize that it is not correct.	1	2	3	4	5	6

14. After listening, I think back to how I listened, and about what I might do differently next time. 1 2 3 4 5 6
15. I don't feel nervous when I listen to English. 1 2 3 4 5 6
16. When I have difficulty understanding what I hear, I give up and stop listening. 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. 1 2 3 4 5 6
18. I translate word by word, as I listen. 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. 1 2 3 4 5 6
20. As I listen, I periodically ask myself if I am satisfied with my level of comprehension. 1 2 3 4 5 6
21. I have a goal in mind as I listen. 1 2 3 4 5 6

Appendix 4. Listening Comprehension Strategies (Metacognition) (PPT slides)

LISTENING STRATEGIES



Listening Comprehension Strategies

• 1. REVIEW WHAT YOU KNOW

- ✓ Think about what you know about the topic.
- ✓ Prepare your mind to receive the new information.
- ✓ Remember it!

• 2. PREDICT

- ✓ Think about what you might hear.
- ✓ Think about all you already know about the topic.
- ✓ Write down the information you might hear.
- ✓ Write down the vocabulary you might hear.

• 3. SELF-MONITORING

- ✓ Identify the parts that require more attention during the second listening.
- ✓ "What part should I listen more carefully?"
- ✓ "How should I take notes more clearly?"

• 4. SELF-EVALUATION

- ✓ "What words do I remember?"
- ✓ "What part should I have listened more carefully?"
- ✓ "What parts did I miss?"
- ✓ "What strategy / activity helped me to understand the text?"
- ✓ "How should I listen for a text next time?"
- ✓ "How should I take notes?"

• SELECTING AND USING LEARNING STRATEGIES

- ✓ Think and make conscious decisions
- ✓ Use context clues to guess the meaning of the unfamiliar words
- ✓ Analyze the unfamiliar word
- ✓ Part of speech (verb, noun, adjective, adverb)

- PREPARING AND PLANNING FOR LEARNING
- Think about:
- ✓What do you need to accomplish?
- ✓What do you want to accomplish?
- ✓How are you going to accomplish it?
- e.g. vocabulary, transition words, main idea, parts

- PREPARING AND PLANNING FOR LEARNING
- Think about:
- ✓What do you need to accomplish?
- ✓What do you want to accomplish?
- ✓How are you going to accomplish it?
- e.g. vocabulary, transition words, main idea, parts

Appendix 5. Consent

ATILIM ÜNİVERSİTESİ

YABANCI DİLLER YÜKSEKOKULU MÜDÜRLÜĞÜNE

Gazi Üniversitesi Eğitim Bilimleri Enstitüsü Yabancı Diller Eğitimi Ana Bilim Dalı İngiliz Dili Eğitimi Bilim Dalında yüksek lisans öğrencisiyim. Tez çalışmam kapsamında yüksekokulunuzda veri toplama aracımın uygulamasını yapmak istiyorum. Veri toplama aracımın bir kopyası ektedir. Veri toplama aracımın çalışması için ve öğrencilerle yapacağım uygulamalar için gerekli iznin tarafıma verilmesini saygılarımla arz ederim.


Büşra ŞİRİNGÜR

Öğrenci No: 168164110

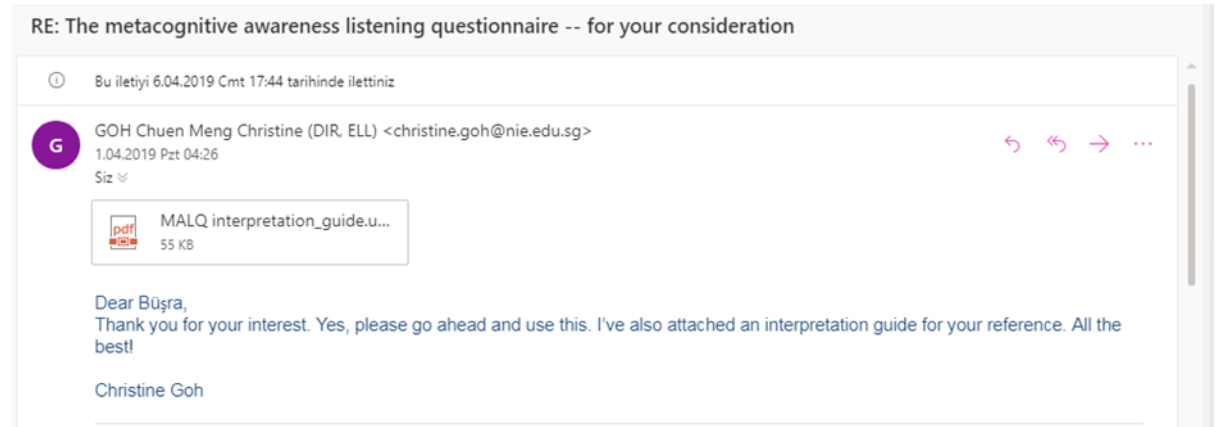
Ek: Veri Toplama Aracımın Örneği

26/06/2019
Uygundur.



Prof. Dr. Meltem Huri Baturay
Temel İngilizce Bölüm
Başkanı

Appendix 6. Consent





GAZİLİ OLMAK AYRICALIKTIR..