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The Difficulties in Learning Listening Skill of Third-Year Non-English Majors at Dong Nai Technology University and Some Solutions



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ABSTRACT: According to estimates, listening accounts for 40–50% of the time spent communicating, followed by speaking (25–30%), reading (11–16%), and writing (approximately 9%) (Mendelssohn, 1994). This study aims to highlight the issues that third-year students at Dong Nai Technology University have with listening comprehension while also highlighting the contributing causes. The study's findings are based on information gathered through survey questionnaires that were completed by 100 students at Dong Nai University of Technology. In order to improve the study's validity and reliability, class observation was also used. The findings indicated that learners encountered a variety of listening issues, which were categorized into four groups: factors related to the speakers and listeners; factors related to students' linguistic challenges in learning listening; factors related to students' listening challenges related to the listening text. Some suggestions were made based on the research's findings to assist them in overcoming the challenges associated with learning listening skills.

KEYWORDS: difficulties, listening comprehension, non- English majors.

I. INTRODUCTION

It is undeniable that English teaching and learning in Vietnam has significantly improved recently, particularly with Vietnam's entry into the WTO. Compared to earlier, the demand for English communicative skills is increasing. Grammar and vocabulary instruction used to be priority, but that is no longer the case. Since they are the main component of international communication, communication skills like speaking and listening have received more attention in recent years. Thus, the importance of students' communication skills has been emphasized. The communicative approach to teaching and learning English has become more prevalent at Dong Nai Technology University (DNTU), as it has at the majority of other Vietnamese universities. Nevertheless, despite the efforts of both teachers and students, non-English majors in general and third-year non-English majors in particular frequently struggle to learn listening comprehension. The majority of students find it extremely difficult to listen in order to learn.

Thus, in order to help the students at DNTU learn listening skills more effectively, it is crucial and motivating for me to conduct research on the subject of "The difficulties in learning listening skill of third-year non-English majors at Dong Nai Technology University and some solutions."

The purpose of this study is to:

- Examine the difficulties third-year DNTU non-English majors had learning listening skills.
- To enhance the standard of listening skill instruction at DNTU by offering some suggested strategies to assist students in overcoming these challenges.

The study has two research questions that are as follows in order to accomplish these goals:

- 1. What difficulties do third-year DNTU non-English majors have picking up listening skills?
- 2. What are some ideas for enhancing learning listening skills?

II. LITERATURE REVIEW

2.1. Definition of listening comprehension

There have been numerous proposed definitions of listening over the years. Emmert's definition (from Emmert, 1994) is one that we ought to take into account. Emmert (1994) asserts that listening involves more than just hearing words. Students actively receive, interpret, and respond to spoken and/or nonverbal messages through listening.

Listening, according to Underwood (1989, 1), is "the activity of paying attention to and trying to get meaning from something we hear." According to Mendelssohn (1994), listening comprehension is the capacity to comprehend native speakers' spoken language.

A more comprehensive description of listening comprehension is provided by Larry Vandergrift (1999). He views understanding what is being heard as a passive process. The listener must distinguish between sounds, comprehend vocabulary and grammatical structures, interpret stress and intonation, retain what was learned from all of the above, and interpret it within the sociocultural context of the utterance. It is a challenging and active process.

In conclusion, each definition reflects the viewpoint of the author; nonetheless, it is generally acknowledged that listening comprehension is an interactive process rather than simply the process of acquiring audio symbols in a single direction (Brown, 2001).

2.2 Potential problems in learning listening

2.2.1 Class size and teaching facilities

The typical class size in Vietnam, particularly the class of non-language majors, is a big obstacle to learning a foreign language. An ideal foreign language class would have 15–20 students, but the average number of students in one class at the tertiary level is about 40. The source of yet another situational issue is educational infrastructure. Teaching and learning issues can be caused by a shortage of listening materials, poor-quality audio files, outdated textbooks, and outdated cassette players.

2.2.2 Familiarity of the topic

There are so many different listing themes, including those related to daily living, travel, the economy, and even politics. Students find it very difficult to listen because of this variability. According to Rixon (1986), who wrote the book "Developing Listening Skills," "Even someone with a minimal grasp of a foreign language can follow a conversation or a talk on a subject that is familiar to him because he already has familiar concepts and ideas about that topic in his mind, so he can fill in any gaps in comprehension. Someone who is fluent in a language, however, could have trouble listening to something unfamiliar or foreign to him. This can affect even native speakers. For this reason, the most challenging aspect of learning to listen may be an unknown topic.

2.2.3 Strange sounds and various accents

Vietnamese learners may experience problems since some English sounds do not exist in Vietnamese. Native speakers' pronunciation is another "obvious source of difficulties for learners," according to Rixon (1986, 37). It is so obvious to see that many English language learners can recognize English words quite well in written form, but they struggle to understand them in spoken form because they are used to hearing a clear and careful pronunciation of the words; as a result, they find it difficult to recognize when there are certain types of sound changes, such as assimilation or elision. Along with unfamiliar sounds, different accents confuse students' listening skills. According to Buck (2001, 35), the "potentially important variable in listening comprehension" is accent.

2.2.4 Speech rate

Many people do not seem to be able to easily transfer that talent to a second language, despite the fact that we can tolerate missing entire sections of speech when having a discussion in our native language. Because they are unable to keep up with a fast speaker's speech rate and believe that the words vanish before they can be understood, foreign listeners often experience fear (Underwood, 1989).

2.2.5 Students' bad study habits

The practice of striving to comprehend every word while listening is one of the worst learning habits of people learning a second language. They are not in the habit of concentrating on the crucial words for comprehension. All second language learners have at some point encountered this aspect of the problem mentioned above. This frequently occurs when they focus too intently on deciphering the meaning of a word; as a result, by the time they do, they may have lost the context of what is being said.

2.2.6 Poor command of English

Along with bad learning habits, low proficiency levels among students also have an impact on the overall outcome of learning. Lack of linguistic and cultural familiarity with the target language is one of the major problems faced by Vietnamese language learners; as a result, it takes more time for them to acquire the language. Additionally, low-proficient learners can easily get bored and anxious before listening.

2.2.7 Inadequate vocabulary and grammar

One of the main challenges in learning listening is a lack of vocabulary or grammatical structure. For foreign language learners, an unfamiliar term can be a barrier, leading them to pause and consider the word's meaning and causing them to miss the following part of the speech, according to Underwood (1989). As a result, they are abandoned and completely disoriented.

2.2.8 Low motivation

The relationship between attitudes, motivation, and proficiency in a second language, according to Gardner (1985), "is complex; they always interact and influence one another." When they are faced with challenges and learning issues, students frequently feel bored and want to give up. When they repeatedly fail to finish the task, they also lose motivation. They lose interest over time in learning to listen.

2.2.9 Fatigue and concentration

It is apparent that focus is crucial for learning, especially when listening. Foreign language learners' listening focus skills, however, are not so strong. The majority of them will quickly grow weary of attentive listening. Students still find listening to be taxing and unpleasant even when the topics are common and entertaining since they have to work so hard to keep up with the speakers' pace.

III. METHODOLOGY

3.1. Participants

One hundred non-English major third-year students range in age from 20 to 22. They primarily hail from various provinces in Vietnam's south. A random selection of roughly 2000 third-year students produced these ones. When they were in their first semester of their third year at DNTU, the study was conducted. The majority of them completed courses in Basic English 1, Basic English 2, and General English 1, General English 2, but their levels of English competence varied. Additionally, some of them only view English as a sub-subject, so the study of English has received little attention.

3.2. Data collection instruments

3.2.1 Survey questionnaires

The main quantitative approach used in this study to identify listening comprehension issues faced by third-year students at DNTU is survey questionnaires. To ensure that the students fully understood the requirements, the questionnaire was first prepared in English and then translated into Vietnamese. There were three components to it, each serving a particular function. The first section sought to learn more about the participants' backgrounds, including their age, gender, the length of time they had been studying English, as well as their major. The purpose of part two was to look into the challenges they have when learning to listen, as well as their expectations of teachers, which would then be presented for choice in part three.

3.2.2 Classroom observation

Classroom observation served as the study's second data collection tool. This tool assists the writer in gathering the essential data regarding the current listening teaching and learning environment at DNTU and in doing a secondary analysis of the listening teaching and learning process. Additionally, all information gathered through the distribution of questionnaires would be verified for accuracy twice before being seriously considered and analyzed.

IV. RESULTS AND DISCUSSION

4.1 Results

The goal of this study was to pinpoint the difficulties third-year DNTU non-English major students were having with listening. The researcher was able to obtain the necessary and valuable information with the aid of questionnaires and classroom observations. This information was then examined both quantitatively and subjectively and was separated into four key categories: listening text, speaker, listener (learner), and studying environment.

4.1.1. Survey questionnaires

4.1.1.1 Difficulties related to listening text

Due to novel topics, challenging vocabulary and grammatical structures, and lengthy speech, the hearing text may be the primary cause of listening comprehension issues. The graph below demonstrates how DNTU students are challenged by the listening text.

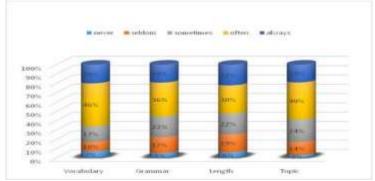


Chart 1. Learners' perceptions of listening difficulties related to listening text

According to the first four alternatives on the students' questionnaire, Chart 1 shows how the students perceived their listening challenges in relation to the listening text. It is not surprising that the majority of pupils agreed that language was a challenge for them when listening (46% frequently, 20% constantly). In general, DNTU students are unmotivated to pick up new terms, and their vocabulary is extremely limited. When it comes to topics, the response rate is 40% frequently and 19% always, while 35% and 30% of students said they frequently struggle with grammar and length, respectively. Given the results above, it is plausible to conclude

that the vast majority of students have difficulty understanding what they are listen to. The fact that complicated grammatical structure only comes in third in the total score seems a bit surprising to me. However, there is not much of a difference between the hardest and easiest component (vocabulary and length), and all four of the previously listed categories have a high "often" %. This finding supports the notion that the listening comprehension process for DNTU students is significantly influenced by vocabulary, grammar, length, and topic.

4.1.1.2 Difficulties related to listeners

Listeners' difficulties may be caused by their failure to choose ineffective learning strategies, difficulty to comprehend pronunciation, and inability to use the five sub-component skills in learning successfully. Charts 2a and 2b show the following issues students have learning to listen that are brought on by circumstances relating to the listeners themselves:

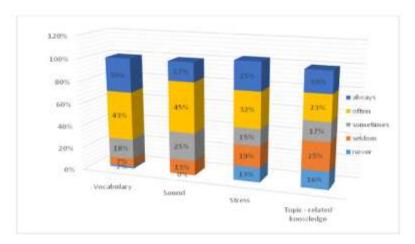


Chart 2. Learners' perceptions of their linguistic difficulties in learning listening.

Chart 2a makes it clear that the majority of students reported to having vocabulary difficulties when listening (43% frequently, 30% always). According to the graph, 43% of the students frequently struggled to identify known words when they were uttered. It is shocking to learn that 16% of students had no issue recognizing background information while more than half of the students had trouble identifying essential phrases in the listening texts.

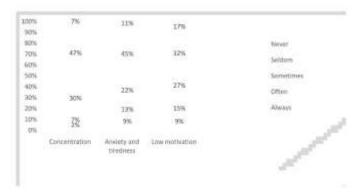


Chart 2b. Learners' perceptions of learning difficulties related to listeners

According to the results in chart 2b, a significant portion of students (47%) agreed that they frequently were distracted when listening. Only 2% of respondents said they never got distracted during listening exercises. With 45% frequently and 11% always, students also have major difficulties due to anxiety and exhaustion.

Many students also admitted that they weren't particularly interested in the listening lessons. In addition, the rates of "sometimes" and "always" in this area also account for a significant percentage, with 27% and 17%, respectively, of students reporting that they felt unmotivated to listen frequently. Thus, motivation is a significant factor that hinders students' ability to understand what they are listening.

In summary, the listener-related factors of fatigue and anxiety, attention, motivation, and linguistic proficiency in the listening text all have an impact on the students' listening comprehension processes.

4.1.1.3 Difficulties related to speakers

Speaker's quick speech rate, accent, or the number of speakers in a conversation are some speaker-related elements that can cause listening comprehension issues. The graph below illustrates how DNTU students are impacted by speaker-related factors.

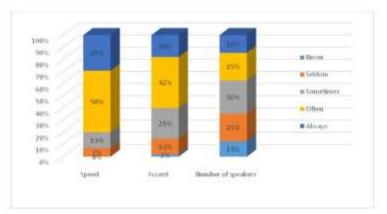


Chart 3. Learners' perceptions of their listening difficulties related to the speakers

The students' struggles with studying due to speakers are shown in Chart 3. The graphic shows that half of the students frequently struggled to keep up with the speakers' pace. None of the participants thought it was a simple task and never ran into any difficulties. The results demonstrate that students' biggest speaker-related complaint is speech rate.

Many students (42%) admitted that they found it difficult to pay attention when the recording's accent was foreign to them. 43 out of 100 students acknowledged that they occasionally or always found it challenging to recognize a word they already knew due to the speakers' pronunciation. These data allow us to place "accent" as the second problematic speaker-related element.

However, given that 14% of students had no trouble listening to recordings with numerous speakers, the issue of speaker count should be ranked as the third interfering listening comprehension problem. Students who always found it difficult only make up 16% of the participants, which is the minority.

4.1.1.4 Difficulties with the listening environment

On listening comprehension, environmental circumstances may also have some bearing. The most obvious factors affecting the listening environment can be identified as being the poor quality of listening files or audio players, the time allotment restriction, and the size of the class.

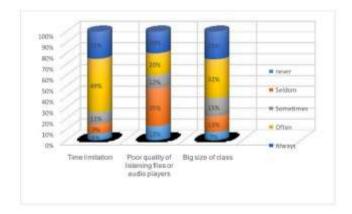


Chart 4. Learners' perceptions of their listening difficulties related to the listening environment

The fact that 74% of participants reported finding listening comprehension challenging frequently or always is not surprising given the brief duration of the listening lesson. Only 6% of them had no issues with listening when it came to the passage of time. The majority of students never or only seldom encountered poor quality listening files or audio players, according to the data of the quality of teaching and learning listening facilities. 32% of students who were asked about class size indicated that it frequently had an impact on their ability to listen. According to the aforementioned research, students find that the time allocation restriction is the most problematic aspect of the listening environment.

4.1.2 Classroom observation

This part would present the listening environment in terms of the setting and instructional resources. Additionally, the data gathered from the writers' own observations would be expressed appropriately.

As presented in chapter 2, there are roughly 40 pupils in each class, which is far too many for an English class. This makes it challenging for a teacher to monitor every student and determine whether or not they are on target. Additionally, in such a large class, students often produce noise, making student distraction during a listening lesson all but inevitable. According to my observations, the teaching facilities at DNTU are actually not a concern for the instructors because each one is well-equipped with

integrated speakers for LCD displays or head projectors. Three listening lessons were selected at random for the author to attend and observe. The students initially showed signs of boredom and discouragement. The scenario, however, altered after the lecturers welcomed me to the session and made some modifications to the pre-listening stage. The lesson that day focused on food, so the teacher presented a very brief clip from the program Masters Chef of America and asked the students to guess what it was about. The instruction piqued the students' intense curiosity. Even though the teacher couldn't finish all the objectives by the end of the lesson, I thought it went well. Without telling teachers beforehand, the second and third classes were observed. I looked at the schedule and chose at random to attend two 15-minute listening courses. In these two lessons, teachers followed the standard procedure by having students simply listen to the listening material. Teachers first allowed students to listen twice before asking the textbook comprehension questions. When teachers have to play the lesson over and over, over and over, the results don't seem to be as good. This data enables the author to reach the conclusion that teaching strategies have a significant impact on how well students learn.

4.2 Discussion

The aforementioned result makes it evident that third-year students at DNTU encountered numerous challenges when studying listening comprehension. Students' ability with English is their initial area of difficulty. They frequently struggle to comprehend hearing materials that contain strange terms. This indicates that the vocabulary of the students is insufficient for them to comprehend the listening readings. One of the issues is their capacity to handle the listening text's novel topics and long speeches. The students' lack of background knowledge or topic-related knowledge may be the cause of these issues, which may cause them to feel anxious while listening. According to 16% of students in chart 2.a, background knowledge was never a difficulty for them. We checked and discovered that these students misread the question. They might have had some knowledge of the subject, but all of the interpretation was in Vietnamese. As a result, it's important to give students background information about the subject.

Additionally, they struggle with sounds. This might be as a result of students' poor pronunciation, which prevents them from understanding spoken words. One of the challenges faced by DNTU students is their inability to pick out important words in utterances. Students cannot identify the text's meaning if they are unaware of emphasized words in utterances.

Their ability to deal with fast speech rates and strange speaker accents is another weakness. In actuality, most ESL listeners have some degree of dread of fast speakers. This could be as a result of kids not regularly practicing listening independently at home, which prevents them from being accustomed to authentically spoken language.

Another issue that stems from listeners themselves is that students frequently experience anxiety and struggle to focus while listening. In contrast to reading, writing, and speaking courses, listening lessons require students to listen through lengthy spoken passages without the option of pausing or stopping. Furthermore, most students lack confidence in their ability to learn listening because of their poor listening skills. Students become frustrated and demotivated in listening classes over time. Another issue is that students frequently attempt to translate into Vietnamese the meaning of each and every phrase they hear. As a result, they can completely miss the later portions of the listening text.

The hearing environment was the last issue third-year DNTU students without English majors had when studying listening compression. The majority of students said they frequently had trouble understanding what was being said because of the time constraints placed on listening lessons. Many of them also asserted that the number of students in the class frequently had an impact on their capacity for listening. The time limit for English classes in general and listening classes in particular cannot be extended. The final research question, "What can teachers do to help students overcome these difficulties," will therefore be addressed in the part that follows.

4.3 Recommendation

Some recommendations will be made based on an analysis of the various challenges that students faced when learning listening comprehension, as mentioned above. The following solutions will be presented out of order because it is quite difficult to categorize the answer that corresponds to the four elements mentioned above.

4.3.1 Performing pre-listening tasks well

In reality, the pre-listening exercises could operate as a warm-up exercise to get the students interested in the subject. Additionally, it gives students a quick overview of the subject. In that case, the pre-listening could consist of: introducing the topic through visual aids, such as images, drawings, charts, etc. that are pertinent to the topic. Students are asked to think of words, terms, and phrases that are related to the issue by asking a few questions to uncover the topic and by providing the topic's name, using songs or games that are related to the lesson's subject as warm-up exercises.

These exercises help teachers engage their students' attention, activate their schema, and collect all the pertinent words that the students have predicted for later effective listening.

4.3.2 Assistance with vocabulary for students

Teachers can introduce students to important vocabulary and grammar in the listening text before having them complete the actual work because poor competency levels are the most problematic issues that students face. By employing some vocabulary books for

self-practice, students must also develop a robust vocabulary for themselves. In terms of grammar, teachers should highlight a few crucial grammatical structures in the listening text, explain how they should be used, and show students how to pronounce them correctly.

4.3.3 Giving clear instruction

For this point, I agree with Le Thi Hong Loan (2012) that if a teacher doesn't provide clear instructions, students may encounter many difficulties because they won't know what to do. Teachers should be very explicit in their instructions and emphasize the key points when it comes to listening, especially during the listening stage. Teachers should therefore check for understanding to ensure that the students have a clear understanding of the requirements. Before the teacher begins to play the recording, all of the students should be aware of what they need to do.

4.3.4 Redesigning and modifying the tasks

We must acknowledge that no textbook is flawless; even the best textbook has flaws. "No course book will be completely appropriate for every teaching scenario. According to Cunnings Worth (1984:89), "we should not be looking for the perfect course book which meet all our requirement but rather for the best possible fit between what the course book offers and what we as teacher and student needs." The teacher will have to find his or her own way of using it and adapting it if necessary.

4.3.5 Assisting students in becoming accustomed to various accents

Another reason language learners have challenges is different accents. Teachers, however, are unable to teach their students about every accent that exists in the world. In order to open their eyes to the possibilities and give them practice dealing with them, teachers should introduce students to the two most practical English accents- the British and American standard varieties- and then let them sample a few others.

4.3.6 Teaching students the listening strategies

Teachers should teach their students excellent listening techniques and provide them with the necessary listening strategies. To this goal, teachers should give their pupils instructions on how to determine the reason for listening, use prior knowledge of the subject to anticipate or predict material, and identify acceptable listening techniques. Students should pay attention to the portions of the listening input that are pertinent to the stated purpose in addition to the background information and disregard the rest. Students can concentrate on particular input items thanks to selectivity, which also minimizes the quantity of information they need to keep in their short-term memory in order to recognize it. Additionally, teachers should show students how to use top-down and bottom-up strategies flexibly and collaboratively, as well as when to choose each.

4.3.7 Dealing with sounds

According to Underwood (1989, 10), "Students should learn what happens to sounds in continuous speech so that they can associate what they hear with the language they already know in its written form" She further stated that in order for foreign language learners to succeed as listeners, they should make an effort to become familiar with English's sounds. Learning to correctly pronounce the sounds on their own will make it much simpler for students to hear correctly. Some pronunciation practice books are available for students to use. A fantastic resource for self-study is Jonathan Marks' *Use of English pronunciation*. The Ann Baker pronunciation books "*Ship or Sheep*" are another excellent resource. It is an intermediate-level pronunciation course for English language learners that offers systematic pronunciation practice through a range of engaging exercises. Students can practice it at home with the help of their teachers.

4.3.8 Encouraging and supporting students to practice outside of class

"Practice makes perfect," is a saying that is frequently heard. Therefore, it is crucial to support students during class time and help them develop the habit of practicing listening outside of class if DNTU students are to improve their listening comprehension. Anyone who wants to get better at speaking English should use the internet. In addition to being practical, it is also incredibly cost-effective because practice books are not needed.

4.3.9 Changing the topic and listening text

Since listening takes a lot of energy, teachers should select engaging activities and subjects to keep their students' interest. According to Helgesen and Brown (2007), students need to listen for a variety of reasons, so teachers should create a variety of listening assignments in their courses to keep their students engaged and interested. Because we listen to a variety of things in real life, learners also need a variety of samples to listen to, such as lectures, conversations, announcements, and advertisements.

V. CONCLUSION

The majority of Vietnamese students, including those at DNTU, struggle with listening comprehension. These issues put teachers at DNTU's listening instruction procedure under pressure. The findings indicated that learners encountered a variety of listening issues, which were categorized into four groups: factors related to the speakers and listeners; factors related to students' linguistic challenges in learning listening; factors related to students' listening challenges related to the listening text. There are several reasons for this, but the three primary ones are students' poor pronunciation, limited vocabulary, and little exposure to spoken language. Based on these findings, additional recommendations are made, including: Using pre- listening activities to draw students' attention

to the lesson, activate their schemata, and get all the pertinent words predicted by students for effective listening later on; or assisting students with vocabulary by introducing useful self-practice books for them. Before playing the cassettes, the teacher should make sure that the students fully comprehend the instructions by giving them at the same time. Additionally, teachers can modify and redesign the assignments because no textbook is perfect. Instead, we should aim for the best possible alignment between the course book's offerings and our needs as teachers and students, according to Cunnings Worth (1984:89).

Introducing students to various dialects is a helpful strategy for teachers. Language teachers can help students become familiar with the two most useful English accents—the British and American standard varieties—and then let them sample a few others to help them become aware of the possibilities and practice coping with them. We can't deny that different accents are another factor that causes problems for language learners.

The author has learned from my own experience teaching listening that students should be encouraged to listen for general ideas rather than individual phrases. In other words, we should teach them effective listening methods and provide them with the necessary tools. To this goal, teachers should give their pupils instructions on how to determine the reason for listening, use prior knowledge of the subject to anticipate or predict material, and identify acceptable listening techniques. Teachers can also use the compliments and encouragement method, change the listening texts and topics, and assist students in coping with unusual noises.

REFERENCES

- 1) Anderson, A. & Lynch, T. (1988). Listening. Oxford: Oxford University Press.
- 2) Barker, C. (2001). Boost your vocabulary. United States: Pearson Education.
- 3) Brown, H. D. (2001). *Teaching by principles: An interactive approach to language pedagogy, second edition*. New York: Longman.
- 4) Buck, G. (2001). Assessing listening. Cambridge: Cambridge University Press.
- 5) Helgesen, M. & Brown, S. (2007). Practical English Language Teaching: Listening. New' York: McGraw Hill.
- 6) Lougheed, L. (2004). Learning to listen. United Kingdom: Macmillan.
- 7) Mendelsohn, D. J. (1994). Learning to listen: A strategy-based approach for the second language learner. San Diego: Dominie Press.
- 8) Nunan, D. (2003). Listen in. Hong Kong: Cengage Heinle.
- 9) Richards, J. C. (1990). Listen carefully. Oxford: Oxford University Press.
- 10) Rixon, S. (1986). Developing listening skills. London: Modern English
- 11) Publications.
- 12) Rubin, J. (1995). A guide for the teaching of second language listening. San Diego, CA: Dominie Press.
- 13) Underwood, M. (1989). Teaching listening. London: Longman.
- 14) Ur, P. (1984). Teaching listening comprehension. Cambridge: Cambridge University Press.
- 15) Vandergrift, L. (1999). Facilitating second language listening comprehension: Acquiring successful strategies. ELT Journal Volume 53/3. Oxford University Press.
- 16) White, G. (1998). Listening. London: Oxford University Press.



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