*International Journal of Engineering Inventions*
*e-ISSN: 2278-7461, p-ISSN: 2319-6491*
*Volume 15, Issue 5 [May 2026] PP: 74-78*

# English Listening Comprehension among Students at TNUT: A Research Synthesis of Published Studies

**Ha Thuy Linh, Vi Thi Phuong Thao**
*Faculty of International Training, Thai Nguyen University of Technology, Thai Nguyen, Vietnam*

***ABSTRACT:*** *This article examines the English listening comprehension ability of students at Thai Nguyen University of Technology (TNUT) through a synthesis of published studies conducted within the university's own educational context. Theoretically, the paper is grounded in the view that listening comprehension is a complex process involving the recognition of acoustic signals, real-time language processing, and meaning construction under the guidance of cognitive and metacognitive strategies [1]; [2]; [3]; [9]. Empirically, the study synthesizes three main sources: a study on the listening difficulties of first-year students at TNUT, a study on listening strategy use among non-English-major students, and an experimental study on the effects of metacognitive strategy training on students in the advanced program. The findings indicate that TNUT students, particularly first-year students and non-English-major students, experience considerable difficulty in listening comprehension. However, the use of appropriate listening strategies and metacognitive training can significantly improve listening performance. On this basis, the article proposes several directions for innovating listening instruction at TNUT, including adopting a process-oriented approach to listening, strengthening strategy training, and designing listening activities that are closely connected to the university's scientific, technical, and technological orientation.*

***KEYWORDS:English listening comprehension, university students, TNUT, listening strategies, metacognition.***

---

Date of Submission: 05-05-2026 Date of acceptance: 16-05-2026

---

## I. INTRODUCTION

In applied linguistics, listening comprehension is no longer regarded as a passive receptive skill; rather, it is now understood as a complex process in which learners must simultaneously recognize the stream of sound, segment utterances, process semantic information, and connect what they hear with their background knowledge in order to construct meaning. From this perspective, difficulties in listening comprehension arise not only from limited vocabulary or grammatical knowledge but also from constraints in processing spoken language and managing cognitive resources during listening [2]. Graham [5] likewise notes that learners often perceive listening comprehension as the skill in which they are least successful, highlighting its importance as a research area in foreign language education.

A major shift in listening research and pedagogy has been the move from a product-oriented approach to a process-oriented one. Field [1] argues that listening instruction has long focused too heavily on checking answers, whereas the real nature of listening lies in the ongoing mental processes through which learners interpret spoken input. In the same vein, Goh [3] and Goh and Vandergrift [4] emphasize the importance of metacognitive instruction, which helps learners plan, monitor, regulate, and evaluate their own listening. Vandergrift et al. [9] further developed the Metacognitive Awareness Listening Questionnaire (MALQ), thereby providing a strong theoretical and methodological foundation for strategy-based listening research.

In the Vietnamese context, the need to improve English listening comprehension at the tertiary level has become increasingly urgent, particularly at institutions where foreign language education is closely linked to academic and technological training. At TNUT, the English Language program is oriented toward English for Science, Engineering, and Technology, with the goal of equipping students not only with general English proficiency but also with the ability to use English in educational, scientific, engineering, and technological contexts [8]. This orientation makes listening comprehension not merely a course requirement but also a foundational competence for accessing lectures, academic materials, and future professional environments.

At the level of field-based research, several studies at TNUT have directly investigated students' listening skills. Vu and Hoang [10] examined the listening difficulties of first-year students; Ha and Diu [6] explored the relationship between listening strategies and listening proficiency among first-year non-English-major students; and Hoang [7] evaluated the impact of metacognitive strategy instruction on students in the advanced program. However, these findings remain scattered across different learner groups and research perspectives. There is therefore a need for a synthesis study that integrates this evidence into a more systematic picture of TNUT students' English listening comprehension ability.

Against this background, the present article pursues two main objectives: (1) to describe and analyze the major characteristics of TNUT students' English listening comprehension ability on the basis of published studies, and (2) to identify the role of listening strategies, particularly metacognitive strategies, in improving listening performance, thereby proposing pedagogical implications for English language teaching at the university.

## II.THEORETICAL FRAMEWORK AND LITERATURE REVIEW

According to Goh [2], difficulties in listening comprehension can be identified across three major levels of processing: perception, which involves recognizing acoustic signals and words; parsing, which refers to analyzing the stream of speech into meaningful structures; and utilization, which involves integrating incoming information with prior knowledge in order to understand the message. This model is especially useful because it explains why learners may be able to hear the sounds of spoken language but still fail to understand the message: breakdowns may occur at one or more stages of processing. Graham [5] further observes that, from the learner's perspective, listening is often seen as a skill that is difficult to control, anxiety-inducing, and less susceptible to improvement than other language skills.

Building on this perspective, later studies have emphasized the role of listening strategies in helping learners manage the process of understanding spoken language. Goh [3] argues that metacognitive instruction enables learners to become more active and self-regulated listeners by helping them prepare before listening, monitor their comprehension while listening, and evaluate their performance afterward. Vandergrift et al. [9] identify five core dimensions of metacognitive awareness in listening: problem-solving, planning and evaluation, mental translation, directed attention, and person knowledge. Goh and Vandergrift [4] further develop this line of thought into a learner-centered model of listening instruction in which learners are supported in understanding and managing the cognitive, social, and emotional processes involved in listening comprehension.

These arguments are particularly relevant in the context of technically oriented higher education. When learners are required to listen to spoken texts containing specialized information, numerical data, technical terms, and dense logical structures, they must simultaneously employ bottom-up processing to recognize linguistic signals and top-down processing to predict, infer, and connect information with prior knowledge. For this reason, research on the listening comprehension ability of TNUT students should be grounded in a framework that views listening both as a complex cognitive process and as a skill that can be improved through strategy instruction.

## III. RESEARCH METHODOLOGY

This article adopts a secondary-data synthesis approach. Specifically, the data sources were selected according to two criteria: (1) the study had to focus directly on English listening comprehension, and (2) the participants had to be students at TNUT. Based on these criteria, three studies were selected as the primary sources of data: Vu and Hoang's study on the listening difficulties of first-year students [10], Ha and Diu's study on listening strategy use among first-year non-English-major students [6], and Hoang's experimental study on the effects of metacognitive strategy training on students in the advanced program [7]. In addition, the English Language curriculum at TNUT was used to identify the institutional context and the university's specific academic orientation [8].

Regarding the research samples, Vu and Hoang [10] surveyed 46 first-year students, including 15 English-major students and 31 non-English-major students, using a Likert-scale questionnaire and interviews. Ha and Diu [6] investigated 98 first-year non-English-major students through a questionnaire and a listening test. Hoang [7] conducted an experiment with 36 students in the advanced program, including 19 students in the experimental group and 17 students in the control group, over a 15-week semester. Because of differences in sample composition and research design, these studies cannot be combined in the form of a quantitative meta-analysis; however, they are entirely suitable for an interpretive research synthesis.

In terms of analysis, the article compares the published findings along three main dimensions: (1) the level and types of listening difficulties, (2) the role of listening strategies in listening performance, and (3) the extent to which listening outcomes can be improved through pedagogical intervention. This approach makes it

possible to connect field-based evidence from TNUT with broader theoretical perspectives on cognition, strategy use, and metacognition in foreign language listening comprehension.

## IV. RESULTS AND DISCUSSION

### TNUT Students Experience Considerable Difficulty in English Listening Comprehension

The findings of Vu and Hoang [10] indicate that first-year students at TNUT generally face numerous obstacles in learning listening comprehension. The study identifies five major categories of difficulty: content-related difficulties, language-related difficulties, listener-related difficulties, speaker-related difficulties, and difficulties stemming from the physical context. Notably, non-English-major students experienced these difficulties more frequently than English-major students in most situations, and the differences between the two groups were reported to be significant across four categories: content, language, speaker, and listener [10].

The specific manifestations of these difficulties at TNUT are broadly consistent with Goh's framework [2]. In the interviews conducted by Vu and Hoang [10], students reported that they often could not hear words clearly, failed to understand the content because of limited vocabulary, were affected by rapid speech or sound reduction, lost concentration because they focused too heavily on a single detail, and felt tense before listening. These difficulties reflect problems at multiple levels: signal perception, information processing, and psychological regulation during listening. This suggests that TNUT students' listening comprehension is influenced by both linguistic limitations and strategic shortcomings.

Another noteworthy point is that students in both groups considered listening an important skill, yet the amount of time they actually devoted to listening practice remained limited. Vu and Hoang [10] report that most students in both groups spent less than one hour on listening practice, while the frequency of difficulties they encountered remained relatively high. This points to a pedagogical paradox: learners recognize the importance of listening comprehension but do not invest sufficient time or employ sufficiently effective methods to improve it. As a result, progress is slow and learners may easily develop a sense of frustration or helplessness.

### Listening Strategies Are Closely Associated with Listening Comprehension Ability

If the study by Vu and Hoang [10] helps identify the difficulties students face, the study by Ha and Diu [6] sheds light on a possible way to address them: the use of listening strategies. As reported in both the introduction and the results sections of their study, Ha and Diu [6] investigated 98 first-year non-English-major students at TNUT through questionnaires and a listening test, and found a relationship between the degree of strategy use and students' listening competence.

A closer analysis of their findings shows that among the three groups of strategies examined—bottom-up, top-down, and metacognitive—the relationship between strategy use and listening ability was particularly evident. The authors state that "the link between listening strategies and students' listening English competence was strongly shown," and further note that the more effective listeners used bottom-up strategies more frequently than the less effective listeners [6]. The study also found that metacognitive and bottom-up strategies were used more often than top-down strategies in this sample [6].

Pedagogically, these findings are highly significant in a technically oriented educational environment such as TNUT. When students are required to listen to spoken texts containing technical terms, numerical data, questions, and tightly structured logical information, the ability to identify key words, connect small units of information, and process acoustic input from the bottom up can make a substantial difference in listening performance. At the same time, Ha and Diu's findings [6] suggest that merely using strategies is not enough; what matters is whether learners know how to select and apply appropriate strategies effectively. This is consistent with the view of Goh [3] and Goh and Vandergrift [4], who argue that learners need explicit support in managing the listening process rather than simply being exposed to listening texts.

### Metacognitive Training Can Significantly Improve Listening Performance

The most direct evidence for the possibility of improving listening ability at TNUT comes from Hoang's experimental study [7]. This study was conducted with 36 students in the advanced program, divided into an experimental group of 19 students and a control group of 17 students over a 15-week period. In the pre-test, the mean scores of the two groups were 16.32 and 15.88, and the difference was not statistically significant ($p = 0.867$), indicating that the two groups were relatively comparable before the intervention [7].

Following the period of metacognitive strategy training, the post-test mean score of the experimental group rose to 21.11, while that of the control group was 16.06. The difference between the two groups in the post-test was statistically significant ($p = 0.008$). Moreover, within the experimental group itself, the post-test score was markedly higher than the pre-test score (16.32 vs. 21.11), with a reported significance level of 0.013

($p$<0.05), whereas the control group showed no statistically significant change (0.882, $p$>0.05) [7]. These findings provide strong evidence that metacognitive training can produce meaningful improvement in TNUT students' listening comprehension performance.

From a pedagogical perspective, Hoang's findings [7] suggest that an effective listening class should not stop at the sequence of "listen - do the task - check the answers." Rather, learners should be guided in how to prepare before listening, set listening goals, select strategies while listening, identify moments of comprehension breakdown, and evaluate their performance after completing the task. This aligns with the arguments of Goh [3], Vandergrift et al. [9], and Goh and Vandergrift [4], who maintain that metacognition is not a peripheral factor but a central component in the development of foreign language listening ability.

**A Synthesized Picture of TNUT Students' Listening Comprehension Ability**

When these three clusters of studies are considered together, a relatively consistent picture of TNUT students' English listening comprehension ability emerges. First, listening comprehension is a real and widespread difficulty, particularly among first-year students and non-English-major students. Second, this difficulty should not be viewed as an inherent or fixed characteristic of learners, since it is closely related to the ways in which they use listening strategies. Third, when students receive systematic metacognitive training, their listening performance can improve to a statistically significant extent. In other words, the core issue at TNUT is not simply that students are "weak at listening," but that they need more systematic support in how to listen, how to regulate their comprehension during listening, and how to connect listening tasks with specific learning purposes.

**Pedagogical Implications**

Based on the findings reviewed above, the first pedagogical direction for TNUT is to shift from a product-oriented approach to a process-oriented approach in listening instruction. This requires lecturers not only to provide students with listening exercises or test practice, but also to explicitly teach the stages before, during, and after listening, such as predicting content, identifying purposes, taking selective notes, monitoring comprehension, and evaluating strategy use after completing the task. This direction is consistent with both international theoretical perspectives and field-based evidence from TNUT [1]; [3]; [7].

The second implication is the need to strengthen bottom-up processing training for first-year students and non-English-major students. Activities such as recognizing connected speech, reduced forms, sentence stress, key words, discourse markers, numbers, and technical terms should be more systematically incorporated into listening courses. The findings of Ha and Diu [6] show that the students who performed better in listening were those who used bottom-up strategies more frequently; therefore, this represents a particularly practical intervention point in the TNUT context.

The third implication concerns the selection of listening materials that are closely aligned with the university's academic orientation. Since TNUT's English Language program is designed toward English for Science, Engineering, and Technology [8], listening materials should not remain limited to everyday conversational dialogues. Instead, they should gradually expand to include academic and professional spoken texts such as short presentations, process descriptions, technology briefings, career interviews, and basic technical reports. Only in this way can listening instruction be meaningfully connected to the program's training objectives and expected learning outcomes.

The final implication is the need to strengthen listening assessment from a diagnostic perspective. Rather than relying solely on comprehensive end-of-course listening tests, lecturers should include short assessment activities that help identify the specific areas in which students are struggling, such as sound recognition, vocabulary knowledge, attention maintenance, inference of main ideas, or strategy regulation. This approach is consistent with the multi-layered nature of listening difficulties identified in studies conducted at TNUT.

## V. CONCLUSION

Based on the synthesis of published studies, this article concludes that TNUT students' English listening comprehension ability still faces many challenges, particularly among first-year students and non-English-major students. The most prominent difficulties are related to vocabulary, pronunciation, speech rate, the ability to maintain concentration, and the capacity to regulate listening strategies. However, the available evidence is also consistent in showing that listening performance is not fixed; it can be improved when learners are supported with appropriate strategies, especially metacognitive strategies. Accordingly, efforts to innovate listening instruction at TNUT should focus on strategy training, the development of spoken language processing

ability, and the design of listening materials that are closely aligned with the university's scientific, technical, and technological orientation.

In addition, it should be emphasized that this article is a secondary-data synthesis study; therefore, the scope of its conclusions depends on the currently available published data. Future research at TNUT should continue to conduct primary investigations with larger samples, using standardized instruments such as the MALQ in combination with actual listening test scores, in order to clarify more fully the relationship between metacognitive awareness, listening strategies, and students' listening comprehension achievement across different fields of study.

**Acknowledgment**
The author wishes to thank the Thai Nguyen University of Technology for supporting this work.

## REFERENCES

[1]. Field, J. (2008). *Listening in the language classroom*. Cambridge University Press.https://doi.org/10.1017/CBO9780511575945.
[2]. Goh, C. C. M. (2000). A cognitive perspective on language learners' listening comprehension problems. *System, 28*(1), 55–75. https://doi.org/10.1016/S0346-251X(99)00060-3.
[3]. Goh, C. C. M. (2008). Metacognitive instruction for second language listening development: Theory, practice and research implications. *RELC Journal, 39*(2), 188–213. https://doi.org/10.1177/0033688208092184.
[4]. Goh, C. C. M., & Vandergrift, L. (2021). *Teaching and learning second language listening: Metacognition in action* (2nd ed.). Routledge. https://doi.org/10.4324/9780429287749.
[5]. Graham, S. (2006). Listening comprehension: The learners' perspective. *System, 34*(2), 165–182. https://doi.org/10.1016/j.system.2005.11.001.
[6]. Ha, P. T. T., & Diu, B. T. (2022). An investigation into the strategies for developing listening skills of the first-year non-major students at Thai Nguyen University of Technology. *International Journal of All Research Writings, 3*(11), 115–121.
[7]. Hoang, T. T. (2018). Applying metacognitive strategies in teaching listening comprehension to advanced program students at Thai Nguyen University of Technology. *SSRG International Journal of Humanities and Social Science, 5*(3), 4–9. https://doi.org/10.14445/23942703/IJHSS-V5I3P102.
[8]. Thai Nguyen University of Technology. (2022). *Undergraduate program: English Language major, specialization in English for Science, Engineering, and Technology*.
[9]. Vandergrift, L., Goh, C. C. M., Mareschal, C. J., & Tafaghodtari, M. H. (2006). The metacognitive awareness listening questionnaire: Development and validation. *Language Learning, 56*(3), 431–462. https://doi.org/10.1111/j.1467-9922.2006.00373.x
[10]. u, M. T., & Hoang, T. T. (2023). Difficulties in learning English listening skills of first-year students. *International Journal of Creative and Innovative Research in All Studies, 5*(12), 1–9.