

Article type:
Qualitative Research

1 English Department, Faculty of Languages and Arts, Universitas Negeri Surabaya, Indonesia.

Corresponding author email address:
slametsetiawan@unesa.ac.id

Tracking Fluctuations in Listening Anxiety and Metacognitive Awareness Among EFL Learners: A Qualitatively Dominant Mixed-Methods Study

Ika. Hidayanti¹ , Slamet. Setiawan^{1*} , Syafi'ul. Anam¹ 

ABSTRACT

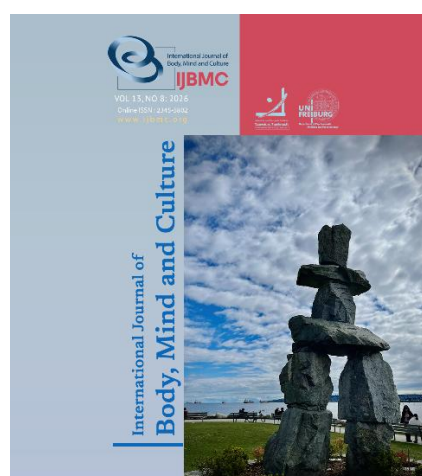
Objective: This study aimed to explore baseline listening anxiety, situational fluctuations in listening anxiety, and the development of metacognitive awareness among EFL learners during a six-week longitudinal listening program.

Methods and Materials: A qualitatively dominant embedded longitudinal mixed-methods design was used. Participants were 18 undergraduate EFL learners from a private university in East Java, Indonesia, selected through purposive sampling. Quantitative data were collected using the Foreign Language Listening Anxiety Scale, Anxiety Temperature Charts, and the Metacognitive Awareness Listening Questionnaire. Qualitative data were obtained from reflective listening logbooks completed after repeated listening tasks. Quantitative data were analyzed descriptively, while reflective logbooks were analyzed thematically. The two datasets were integrated through comparative interpretation.

Findings: Baseline listening anxiety was moderate, $M = 2.81$, $SD = 0.54$. Worry had the highest mean, $M = 3.36$, $SD = 0.63$, whereas anticipatory fear was low, $M = 2.19$, $SD = 1.18$. In-class anxiety fluctuated across sessions, peaking in Session 4, $M = 3.40$, $SD = 0.55$, and declining in Session 6, $M = 2.50$, $SD = 0.45$. Out-of-class anxiety was more stable, ranging from $M = 2.80$ to 3.20 . Reflective logbooks identified problem awareness, 25 occurrences; evaluative awareness, 20; process awareness, 17; and emotional awareness, 11. MALQ scores showed descriptive gains in problem-solving, planning-evaluation, directed attention, and metacognitive knowledge, with a slight decline in mental translation.

Conclusion: Listening anxiety was dynamic and context-dependent, while repeated reflection supported emerging metacognitive awareness among participating Indonesian learners.

Keywords: EFL Listening, Listening Anxiety, Metacognitive Awareness, Reflective Journals, Longitudinal Mixed Methods.



Article history:

Received 23 Mar 2026
Revised 18 May 2026
Accepted 24 June 2026
Published online 01 Aug 2026

How to cite this article:

Hidayanti, I., Setiawan, S., & Anam, S. (2026). Tracking Fluctuations in Listening Anxiety and Metacognitive Awareness Among EFL Learners: A Qualitatively Dominant Mixed-Methods Study. *International Journal of Body, Mind and Culture*, 13(8), Article e2026-1600. <https://doi.org/10.61838/ijbmc.v13i8.1600>



© 2026 the authors. This is an open-access article under the terms of the Creative Commons Attribution-NonCommercial 4.0 International (CC BY-NC 4.0) License.

Introduction

Learning to listen is widely recognised as one of the most difficult skills to acquire in a second or foreign language, because it requires learners to process spoken information on the fly and to understand not only the linguistic information but also the context (Vandergrift, 1997; Vandergrift, 2004; Vandergrift & Goh, 2012). Listening, like reading, offers little chances for review of what is being received and therefore the optimum for understanding is mostly a matter of the ability of the learner to absorb information effectively. These challenges for English as a Foreign Language (EFL) learners are caused by foreign terminology, fast speech, diverse accents, contracted speech patterns and the absence of sufficient previous knowledge (Goh, 2000; Graham, 2006). Thus, understanding spoken language involves not just a cognitive process but emotional events that change the understanding of the learners.

One of the emotional components that impact hearing is listening anxiety and it is a key one. Listening anxiety is an uneasy, tense, and uncomfortable feeling experienced while striving to grasp the spoken language, especially when students believe the listening task is beyond their language competence (Kim, 2002; Kimura, 2008). Anxiety may lead to poor focus, less working memory, and learners' inability to grasp what they are listening to (Vandergrift & Goh, 2012). However, the new viewpoints have suggested that listening anxiety should be seen as a mood, not a trait, and as a condition of emotion that may vary depending on the listening settings and teaching scenarios.

The recognition that listening anxiety is an emotional experience and is context dependent implies the necessity to monitor learners' emotional reactions throughout their learning process, rather than assessing anxiety at a certain point in time. Vandergrift & Goh (2012) advocate the use of anxiety thermometer charts as a useful tool for recording learners' feelings of anxiety before, during and after listening exercises. By permitting continuous emotional monitoring, listeners may get opportunities to catch anxiety causing events while researchers may get opportunities to explore variances in self-reported anxiety across listening activities.

Long-term monitoring is more beneficial than the conventional single-instance surveys, since anxiety

could alter across different learning situations. This technique considers anxiety as a dynamic process and captures the changing emotional experience of learners via a sequence of listening activities.

Reflective logbooks are also widely used to record learners' ideas on their metacognitive knowledge as well as emotions. By reflecting often, learners may identify the problems they have in listening, the techniques they use and the reasons for choosing those strategies. The reflections enable learners to articulate their listening experiences, perceived challenges and use of methods (Judy Shih, 2021; Lee & Cha, 2017).

Metacognitive awareness is an integral part of hearing, since it empowers the learners to arrange, monitor, assess and manage their understanding of listening activities. The teaching of metacognitive strategies and more strategic listening behaviors have been repeatedly associated with this (Vandergrift & Goh, 2012; Al-Shammari, 2020; Graham & Macaro, 2008; Tanewong, 2019). Metacognitive awareness can be viewed as a continuing learning process, not an end product to be measured by questionnaires, especially when used in conjunction with reflective logbooks.

Previous studies have established the impact of listening anxiety and metacognitive awareness, but the research has predominantly used cross-sectional surveys, pretest and posttest approaches, and single questionnaire administrations. These techniques provide significant insights on the overall anxiety and metacognitive awareness of learners, but they fall short of understanding how the emotional experiences of learners evolve throughout repeated listening engagements.

Moreover, there are not many studies that use reflective logbooks and anxiety thermometer charts to investigate learners' emotional experiences and metacognitive awareness at the same time in a longer-term learning environment. Little research has been done on learners' anxiousness while thinking about their listening approaches.

To fill this gap, the current study used a qualitatively dominant mixed-methods strategy to explore listening anxiety and metacognitive awareness in a long-term listening program. Quantitative data were obtained using Foreign Language Listening Anxiety Scale (FLLAS), anxiety temperature charts and Metacognitive Awareness Listening Questionnaire (MALQ), while

qualitative data were acquired using the learners' reflective logbooks. This combination of instruments allowed for a descriptive description of the learners' level of anxiety and a more in-depth investigation of their metacognitive thoughts throughout multiple sessions of listening.

This research takes a process-oriented approach to listening anxiety instead of a trait-like feature by documenting the affective experience of learners throughout a number of listening sessions and comparing it with their self-reported metacognitive awareness. The combined use of continuous affect monitoring and reflective learning offers deeper insight into how learners cope with listening anxiety and how they construct metacognitive awareness in a longitudinal EFL listening course. What are the overall patterns of listening anxiety among EFL learners as reflected in the listening anxiety questionnaire? How does listening anxiety fluctuate during successive listening tasks based on learners' anxiety temperature charts? How do learners express their explanations for changes in their listening anxiety and emotional self-awareness throughout the listening process? In what ways do learners display metacognitive awareness and self-regulated learning through their reflective learning logs during repeated listening activities?

Methods and Materials

Research Design

The research was performed utilising a qualitatively-driven embedded longitudinal mixed methods technique (Creswell & Clark, 2007). The qualitative one was the main one and it was aimed at exploring the learners' perceptions, comprehension and reflection on changes in their listening anxiety and development of metacognitive awareness via the repetition of English as a Foreign Language (EFL) listening tasks. On the other hand, the quantitative section further contextualised the data by giving descriptive information on the learners' initial listening anxiety, changes in anxiety, and stated levels of the learners' metacognitive awareness.

This research adopts a longitudinal technique to investigate the emotional and metacognitive growth of learners in several listening sessions rather than a single evaluation. Data were taken simultaneously during the teaching session, and data were integrated using both

quantitative and qualitative data throughout the analysis process. More specifically, the quantitative results obtained from the Foreign Language Listening Anxiety Scale (FLLAS), anxiety temperature assessments, and the Metacognitive Awareness Listening Questionnaire (MALQ) were used to provide context and support for the qualitative findings generated from the learners' reflective journals. The two datasets were combined via comparative analysis and collaborative interpretation in regard to each study issue.

Learners

The research involved 18 undergraduate EFL learners who were part of a Listening course in the English Language Education Program at a private university located in East Java, Indonesia. Learners were selected through purposive sampling because they were enrolled in the same mandatory listening course during the semester when the research was carried out.

The group included learners in their third semester with ages ranging from 19 to 21 years. There were 5 male and 13 female learners among them. All learners had been studying English since high school and had completed at least two semesters of university listening courses before this research began.

The participants were taken from one of the third-semester listening classes of the English Language Education Program in one of the private universities in East Java, Indonesia. All participants learned in the same required listening course in the semester when the research was conducted. The learners were chosen from the same class and academic level to ensure that they were exposed to the same teaching materials, learning activities, and classroom setting in the six weeks of the research. A standardized test to measure English proficiency was not administered as the research did not intend to compare the learners based on their proficiency levels but rather to investigate how listening anxiety and metacognitive awareness changed over time in the same learning context.

As the study was exploratory, the small number of learners was considered appropriate as it enabled a comprehensive longitudinal investigation of the emotional insights and development of metacognition of the learners thru repeated collection of qualitative data.

Instruments

Foreign Language Listening Anxiety Scale (FLLAS): Foreign Language Listening Anxiety Scale (FLLAS) In this research, the Indonesian edition translated and adjusted using the methods described above was used. Learners' initial listening anxiety was measured by the Foreign Language Listening Anxiety Scale (FLLAS) developed by Kim (2002). The questionnaire consists of 33 items, scored on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). It measures three dimensions of listening anxiety: emotional reactions, worries, and anticipatory fears. The Foreign Language Listening Anxiety Scale (FLLAS) was given to learners once at the beginning of the study to determine their initial listening anxiety before the longitudinal observations started. The tool has been used in earlier investigations and was shown to be trustworthy (Cronbach's $\alpha = .93$), justifying its application in measuring listening anxiety in EFL learners. The FLLAS was utilised in this study to assess the learners' initial listening anxiety and to aid in the following longitudinal study of situational listening anxiety.

Anxiety Temperature Charts: The chart and instructions were prepared in Bahasa Indonesia so that everyone understood the scale of anxiety ratings in the same manner. In this study, situational listening anxiety was evaluated by the researchers using an Anxiety Temperature Chart as a repeated self-report measurement device. The instrument includes a single question: "How anxious did you feel while completing today's listening task?" Respondents assessed their anxiety levels on a scale from 1 to 5, where 1 indicated not at all nervous, 2 indicated slightly apprehensive, 3 indicated moderately anxious, 4 indicated highly anxious, and 5 indicated very anxious.

The chart was filled out immediately after each listening activity in order to accurately quantify the anxiety experienced by the learners throughout the task and to reduce the danger of remembrance bias. Learners filled out the chart after each of the six classroom listening sessions and six solo listening tasks, producing a large number of measurements during the six-week study. The Anxiety Temperature Chart was employed as a measuring tool only to analyse changes in situational listening anxiety over time. It was neither created or utilised as a tool of teaching, or of meditation. Learners made one anxiety score on the chart and more specific

perspectives of their experiences, listening barriers and learning approaches in the reflective listening diaries.

Reflective Listening Logbooks: The reflection questions are created in Bahasa Indonesia to help learners to communicate their experiences in their most comfortable language, without linguistic constraints. The major qualitative tool was the reflective listening logbooks that the learners filled in after each listening session. Learners were asked to report their emotional reactions, issues in listening, solutions employed and thoughts on their listening experience. There were no predefined questions in the logbooks, but open-ended reflecting recommendations, e.g.: What issues did you face during the listening task today? How did you feel while engaging with the listening exercise? What strategies aided your understanding of the listening material? What changes would you make in future listening activities? These reflective writings formed the main qualitative dataset to identify the rise of emotional, process, problem, and evaluative awareness.

Metacognitive Awareness Listening Questionnaire (MALQ): The Indonesian version of the MALQ, made by the aforementioned translation and adaptation methods, was given to learners prior to and following the extended listening sessions. Responses were evaluated on a six-point Likert scale, where 1 signified strong disagreement and 6 indicated strong agreement. The scores for each category of the MALQ were determined by calculating the average of the responses related to that particular category. Higher scores suggested an increased level of metacognitive awareness, except for the Mental Translation category, where elevated scores implied a greater dependence on literal translation methods. Items that were negatively phrased were scored in reverse following the scoring guidelines established by Vandergrift et al. (2006). The Indonesian version was created through a forward-backward translation method and was given to the learners. The reliability of the modified instrument was evaluated using Cronbach's alpha. Overall, the MALQ showed good reliability (Cronbach's $\alpha = 0.88$). The reliability rates for each category were as follows: Problem Solving ($\alpha = 0.81$), Planning and Evaluation ($\alpha = 0.84$), Directed Attention ($\alpha = 0.79$), Mental Translation ($\alpha = 0.76$), and Person Knowledge ($\alpha = 0.82$), demonstrating acceptable to good internal consistency for all subcategories.

The MALQ was given twice, once before the long-term listening activities, and once after all listening sessions were completed. Given the very small population of participants, MALQ data were analysed descriptively and utilised to complement the qualitative findings, rather than to statistically test for significant changes.

Procedure

The listening program consists of six classroom listening sessions and six out-of-class activities. The audio resources for EFL learners were converted from CEFR B1 to B2 levels. The subjects - ordinary communication, education, health, technology, travel and environmental challenges - were selected to guarantee that the language and conceptual complexity was equivalent in all the sessions. The audio clips were each around 3 to 5 minutes long, delivered at a rate of 140 to 160 words per minute, and read by one or two native or skilled speakers of English with a standard British or American accent. Also, unique keywords accounted for no more than 5-8% of the total number of

words within each session, and recordings were selected that included mostly high-frequency terms, keeping the vocabulary to a tolerable level. In the classroom, learners were permitted to listen to each audio file once, however in independent activities, learners were allowed to listen up to three times to imitate actual self-paced learning. There were no written transcripts or visual aids given before or during the listening activities, but there were comprehension questions given after each one. All the materials were chosen to be at the same CEFR level, with similar recording durations, rate of speech, number of speakers, recognisable subjects for students, vocabulary used and kind of questions, so that the tasks in the classroom and the ones done on their own may be as comparable as possible. The standardisation was designed to reduce major variations in task difficulty across settings, however slight fluctuations in perceived difficulty between specific sessions could not be entirely avoided.

Table 1.

Characteristics of the Listening Materials Used During the Study

Session	Topic	Duration	Speakers	Accent	CEFR	Replay
1	Daily communication	3.2 min	1	American	B1	1
2	Education	3.7 min	2	British	B1	1
3	Health	4.1 min	1	American	B1+	1
4	Technology	4.5 min	2	British	B2	1
5	Travel	3.9 min	1	American	B2	1
6	Environment	4.3 min	2	Mixed	B2	1

Recordings were chosen to be equivalent for the task according to the following criteria: similar CEFR levels (B1–B2), matched durations (3–5 min), similar speech rates (140–160 words per minute), equal number of speakers (one or two), familiar subject matter, similar vocabulary load (5–8% low-frequency words) and uniform formats for comprehension questions (Table 1).

Data Analysis

Descriptive statistics (means and standard deviations) were utilised to evaluate the quantitative information obtained from the FLLAS, anxiety temperature charts and MALQ. The FLLAS was used to evaluate the baseline listening anxiety of the learners. The anxiety thermometer results were shown as line graphs representing changes in the time during the listening sessions. Descriptive analyses of the MALQ data were performed based on the mean beginning and

ending scores for each of the five metacognition domains. No inferential statistical analyses were performed and differences in measurements were presented in descriptive terms and not deemed statistically significant differences.

Qualitative information from the reflective logbooks was evaluated through thematic analysis. This process involved reading the data several times, coding it initially, grouping similar codes, and identifying larger themes. The analysis revealed four categories of metacognitive awareness: emotional awareness, process awareness, problem awareness, and evaluative awareness. A single reflective entry could be assigned multiple codes because learners often mentioned various aspects of their listening experiences in one reflection.

Lastly, the quantitative and qualitative results were merged during the interpretation by comparing them side by side and creating joint displays to offer supportive explanations for each research question.

Trustworthiness and Ethical Considerations

All qualitative coding was carried out by the primary author. Initial codes were created inductively after multiple readings of the reflective logbooks and were later arranged into larger categories through continuous comparison. A coding framework was gradually improved until the theme definitions became consistent. Since coding was done by one researcher, no agreement between coders was measured. To improve trustworthiness, the researcher kept a detailed record of coding choices, engaged in reflective memoing during the analysis, and held discussions with two colleagues who are knowledgeable in qualitative research. The researcher's dual role as a course instructor was noted as a possible cause of interpretive bias and is acknowledged as a limitation of the study.

To improve the reliability of the qualitative results, coding was performed in cycles through repeated readings and recoding of the reflective logbooks until stable thematic categories were formed. Key quotes were kept to back each theme and to ensure that the interpretations mirrored the experiences reported by learners.

Prior to data gathering, ethical approval for the research was acquired from the department. All learners were given written information about the purpose of the study, voluntary participation and confidentiality of the responses. Consent was obtained from each participant in writing prior to the commencement of the study and identities were kept anonymous in the presentation of the findings.

Language of the Instruments and Adaptation Procedures

To ensure full understanding of the directions and the survey items by the learners, all the tools were provided in Bahasa Indonesia. The translation of the FLLAS and MALQ from the original English texts to Bahasa Indonesia was performed using the forward-backward translation method. A bilingual researcher who was familiar with EFL education translated the original tools into Bahasa Indonesia. Then, another bilingual translator

who was not exposed to the original texts translated them back into English independently. Any differences between the original and back-translated texts were discussed and resolved to ensure that they matched in meaning rather than in wording.

Then, two experts in applied linguistics and English language education reviewed the translated instruments to evaluate their clarity in language, cultural relevance and equivalence in content. Prior to the main study, the translated questionnaires and reflective logbook prompts were piloted with a small group of learners who were not part of the final sample in order to identify any problematic language and to verify that the instructions were clear. In addition, the learners were given the Anxiety Temperature Chart and reflective journal prompts in Bahasa Indonesia so that they may correctly self-report their experiences and thoughts throughout the study.

Findings and Results

Finding 1. Baseline Profile of EFL Learners' Listening Anxiety

The results in [Table 2](#) show that the mean score ($M = 2.81$) suggests that the learners had a moderate level of listening anxiety before the extended listening tasks. The mean score of worry was the greatest ($M = 3.36$) among the three, indicating that the learners' fears regarding their listening comprehension were their main emotional concern. On the other hand, the lowest mean score was on anticipatory dread ($M = 2.19$), which shows that the learners felt less fear in general prior to starting the listening tasks. [Table 2](#) presents the descriptive statistics for each anxiety dimension.

The scores for each of the dimensions of the FLLAS were obtained by averaging the responses of the learners to the questions of the respective dimension. The total listening anxiety score was the average of all the 33 items in the questionnaire. Responses were evaluated on a five-point Likert scale from 1 (strongly disagree) to 5 (strongly agree), with higher scores indicating higher degrees of listening anxiety. The mean ratings were interpreted as the conventional categorisation of five-point Likert scales: 1.00-2.33 = mild anxiety, 2.34-3.66 = moderate anxiety, 3.67-5.00 = severe anxiety.

Table 2*Baseline Listening Anxiety Profile of EFL Learners (FLLAS)*

Dimension	Number of Items	Possible Score Range	Mean	SD	Interpretation
Emotionality	12	1.00-5.00	2.87	0.57	Moderate
Worry	13	1.00-5.00	3.36	0.63	Moderate
Anticipatory Fear	8	1.00-5.00	2.19	1.18	Low
Overall	33	1.00-5.00	2.81	0.54	Moderate

Note. Scores represent the average of learners' responses on a five-point Likert scale (1 means strongly disagree and 5 means strongly agree). The overall score was found by averaging all 33 FLLAS questions, while scores for each dimension were taken as the average of the questions in that specific dimension. The mean scores were interpreted as low (1.00–2.33), moderate (2.34–3.66), and high (3.67–5.00).

The mean score of the overall scale is 2.81, which falls into the moderate range of the established scoring categories. The mean score of anticipatory fear is 2.19, which is graded as low. The groups were called according to the interpretation intervals indicated above.

The high score on the worry category suggests that the learners were often nervous while processing spoken English rather than apprehensive about upcoming listening tasks. The analysis of the individual responses to the questionnaire revealed how these worries were generally related to doubts about understanding spoken information, a foreign language, fast speaking and missing essential points while listening. The results indicated that learners saw listening as a difficult task requiring them to simultaneously focus on processing the language and understanding it.

However, the degree of dread expressed by the learners is moderate, and the questionnaire simply gives an overall assessment of the emotional attitudes of learners towards listening. It doesn't represent how anxiety could travel about in different listening conditions, or how it might fluctuate with repeated

exposure to learning. Thus longitudinal data were needed to explore the nature of listening anxiety as it changes in actual classroom and individual listening activities. To deal with this issue, students completed repeated anxiety thermometer charts throughout the listening program to monitor changes in listening anxiety according to the scenario over time.

Finding 2. Longitudinal Fluctuations in Listening Anxiety Across Listening Sessions

The second interest of the research was about the variations in learners' listening anxiety in numerous listening tasks performed in the classroom and outside the classroom. In these distinct situations, immediately after each listening activity, the learners recorded these emotional occurrences by filling out a chart of an anxiety thermometer. The anxiety temperature chart was designed to follow up the change of the learners' impression of their anxiety throughout six consecutive listening sessions. Differently from the FLLAS, which was intended to offer a preliminary profile of the learners' listening anxiety. The average degree of anxiety each session is displayed in Figure 1 to offer context for the findings.

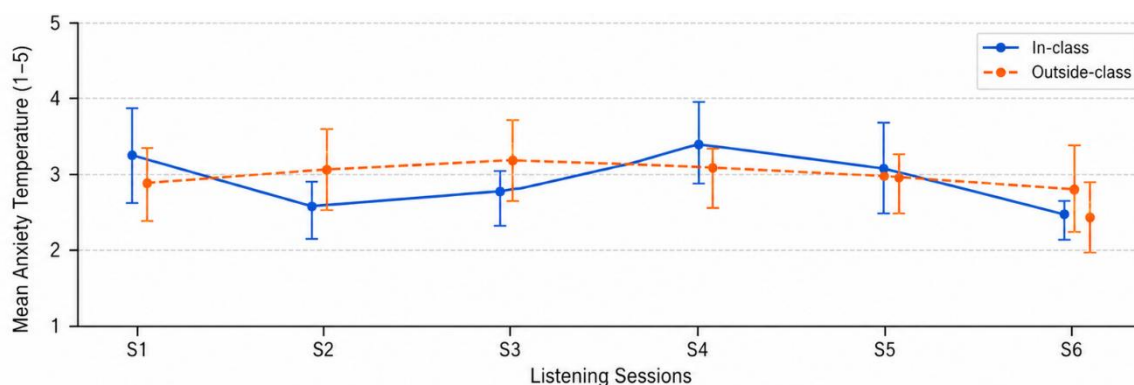
**Figure 1***Mean Anxiety Temperature Across Twelve Listening Sessions*

Table 3.*Mean Anxiety Remperature (SD) Across Six Listening Sessions*

Session	In-class Mean	SD	Outside-class Mean	SD
S1	3.20	0.62	2.90	0.53
S2	2.60	0.50	3.10	0.51
S3	2.80	0.52	3.20	0.50
S4	3.40	0.55	3.10	0.49
S5	3.10	0.51	3.00	0.48
S6	2.50	0.45	2.80	0.50

As shown in [Figure 1](#), the listening anxiety of the learners changed throughout the six listening sessions. The learners' anxiety was not steady but fluctuated over the duration of learning. The increases in anxiety experienced were higher during in-class listening activities compared to solo listening outside of class.

Anxiety profile for in-class activities was rather high in the first session, dropped in Sessions 2 and 3 and then surged again in Session 4. Anxiety levels fell again in Session 5 and Session 6, after Session 4. The out-of-class work anxiety profile was fairly constant over the six sessions with very slight variations across the measures. These results indicate that classroom listening resulted in stronger emotional peaks and troughs in learners than did solo task completion ([Table 3](#)).

Differences in trends seen in the two settings may suggest differences in the learning environments. Inside the classroom, listening tasks were teacher-directed, with limited time for processing and expectations of performance, whereas outside the classroom learners had more control over their listening speed, could listen to audio materials repeatedly and could select strategies that suited their individual learning styles. These contextual variations may have contributed to the more consistent pattern of anxiety seen in the out-of-class episodes.

The anxiety temperature charts also demonstrate that the learners' emotional states were not uniform over the series of listening sessions. The level of anxiety was not only more or less, it was different from session to session. For instance, the peak in Session 4 shows that this specific listening task was perceived as more challenging than the preceding ones. These variances may be due to differences in task demands, topic knowledge, speech rate, lexical difficulty, or distinct contextual elements in the learning process.

Finding 3. Complementary Perspectives from Baseline and Situational Anxiety Measures

The third research topic was a detailed comparison of learners' initial listening anxiety measured by the Foreign Language Listening Anxiety Scale (FLLAS) and the patterns of situational anxiety recorded in the longitudinal anxiety temperature charts. The two measures measured different elements of listening anxiety but both provided important information about learners' emotional experiences throughout the study.

The FLLAS assessed the learners' listening anxiety prior to the initiation of the longitudinal listening program. Overall, the learners reported moderate levels of listening anxiety, the worry aspect being the largest. This means that a lot of the learners had entered the program with some concern about their understanding of spoken English especially when faced with challenging terms of speech or when they were not sure of what they knew.

But the anxiety temperature charts recorded the emotional responses of learners repeatedly across the six listening sessions. The longitudinal data revealed substantial change in the listening activities in class, which contrasted with the relatively stable baseline profile established from the questionnaire. Although the learners had similar baseline anxiety levels, their reported situational anxiety fluctuated significantly throughout the listening sessions, suggesting that the emotional responses varied depending on the learning environment and the individual listening tasks.

Once the classroom listening sessions started, the trend changed. Anxiety was high in the first session but reduced in the following sessions, spiked in session 4 and decreased at the end of the study. By contrast, the anxiety seen in the individual listening tasks remained very stable during the six sessions. This comparison illustrates that classroom listening differed in emotional reactions from self-guided listening exercises.

In general, the two tools provided important complementary information on learners' listening anxiety. The FLLAS revealed a general tendency of learners' listening anxiety prior to the intervention. The anxiety temperature charts depicted the variation in situational anxiety throughout repeated listening activities. Such data together provide a more complete picture of listening anxiety with both baseline and ongoing measurements.

Importantly, these results do not imply that one measurement caused or explained the other. Rather, the descriptive comparison implies that learners who reported moderate baseline listening anxiety also reported variable degrees of situational anxiety over repeated listening tasks. These contrasting results illustrate the dynamic and contextualised nature of listening anxiety and are in line with the descriptive aim of this longitudinal mixed-methods study.

Finding 4: Emergence of Metacognitive Awareness from Reflective Listening Logbooks

The fourth research problem dealt with learners' metacognitive awareness growth in repeated listening tasks. Learners filled reflective listening notebooks after

each session in order to explore this subject. These journals enabled learners to express their feelings, difficulties in comprehension, listening tactics and thoughts throughout the learning process.

The qualitative data underwent thematic analysis. First, all journal entries were reviewed multiple times to gain a comprehensive understanding of the learners' experiences. Related significant statements from the learners' reflections were then coded and categorized into overarching themes of metacognitive awareness. The analysis revealed four common themes: emotional awareness, process awareness, problem awareness, and evaluative awareness. A single entry in a journal could receive several codes since learners often mentioned various elements of their listening experiences in one reflection. To enhance consistency in coding, the coding framework was continuously revisited during the analysis, and relevant excerpts were reviewed until shared definitions of the categories were established. [Table 4](#) displays the frequency of coded statements along with the number of learners illustrating each type of awareness.

Table 4

Summary of Metacognitive Awareness Identified from Reflective Logbooks

Awareness Type	Description	Occurrences	Total learners (n=18) / %
Emotional Awareness	Awareness of emotional responses during listening	11	11 (61%)
Process Awareness	Awareness of listening processes and strategy use	17	15 (83%)
Problem Awareness	Awareness of listening difficulties and their causes	25	15 (83%)
Evaluative Awareness	Awareness of learning progress and self-evaluation	20	14 (78%)

One instance indicated a single coded meaning unit and not a full reflection or a complete sentence. One entry in the reflective logbook could represent many coded occurrences if various meaning units corresponded to different themes. Similarly, a single participant might add several occurrences within the same theme over different listening sessions. The percentages for learners show the ratio of learners who mentioned each theme at least one time during the six-week study.

As indicated in [Table 4](#), Problem Awareness emerged as the most commonly recognized category, featuring 25

coded statements contributed by 15 learners, representing 83%. Following this was Evaluative Awareness, which included 20 coded statements from 14 learners, accounting for 78%. Process Awareness came next with 17 coded statements from 15 learners, also at 83%. In comparison, Emotional Awareness was the least detected with just 11 coded items from 11 learners 61%. The findings indicate that the learners mostly thought about the particular difficulties they had in hearing and tried to find out the causes of them. They also routinely evaluated their development in learning and listening

skills, whereas evaluations on emotional responses were less common.

Emotional Awareness

Emotional awareness was operationalised as the ability of the learners to identify and verbalise their emotional reactions to the listening tasks. Specifically, eleven learners reported feeling anxious, tense, frustrated or relieved while doing listening tasks. Examples of reflections include: *"I didn't really like the listening task because I missed some crucial information."* (P11, LB2). *"I felt anxious when I encountered many unknown words."* (P4, LB3). *"I was uneasy because the speaker spoke too fast for me to grasp the information."* (P12, LB3). These comments show that learners were able to identify emotional reactions that were related to particular listening situations rather of merely saying whether they liked or did not like the activity.

Process Awareness

Process awareness in terms of learners' thinking about their involvement in listening activities and assessment of their comprehension while listening. Fifteen learners mentioned tactics that assisted their understanding of spoken content, such as identifying main ideas, paying attention to significant words, and revisiting the listening material. For instance: *"I need to pay attention to the first sentence since it usually indicates the topic and keywords."* (P1, LB2). *"After listening to the audio three times, I understood about 75% of the content."* (Pt4, LB2). *"Listening a second time helped me enhance my grasp of the material."* (P8, LB3).

Some learners also mentioned that familiar subjects made understanding easier. *"I understood much better when the topic was something I already knew."* (Pt11, LB2). Such reflections show that the learners actively monitored their understanding and grew more aware of what listening methods they found useful while engaging in repeated listening activities.

Problem Awareness

The basic premise of the reflective logbooks was the problem awareness. The problems listeners reported for their hearing were mostly related to new terminology, quick speech, different English accents, difficulty distinguishing between speakers, background noise, and lack of visual assistance. Examples include: *"They talked really fast and used a lot of new words, so I didn't grasp the discussion."* (P7, LB3). *"The British accent made it hard for*

me to follow the audio." (P4, LB2). *"Too many people were speaking simultaneously, causing me to lose focus."* (P12, LB2). *"There were no images to assist my understanding during the listening."* (P1, LB3). The power of this topic indicates that learners were typically able to identify what caused their listening issues, however the depth of their insights differed from learner to learner.

Evaluative Awareness

This evaluative awareness meant learners reflecting on their listening abilities and evaluating their development. Fourteen learners reported their self-ratings of their knowledge and perceived gains in their listening skills over time. Notable quotes include: *"My listening wasn't very strong since I couldn't figure out who was talking."* (P11, LB2). *"I grasped the recording more clearly because the speaker was easier for me to follow."* (P12, LB1). *"After listening again, I felt sure that I understood most of the key words."* (P10, LB2). Such comments suggest that learners were able to evaluate their own understanding and to identify conditions that either supported or hindered successful listening.

In the four themes, the reflective logbooks showed that the learners not only documented their emotional reactions but also their opinions on the listening procedures, challenges and self-assessments. Even though the number of coded statements varied by category, the qualitative data indicates that ongoing reflection encouraged learners to express different aspects of their listening experiences during the extended learning phase. Since these results came from self-reported thoughts, they should be seen as learners' perceived experiences rather than concrete proof of shifts in metacognitive skills.

Finding 5: Descriptive Changes in Metacognitive Awareness: Supporting Evidence from the MALQ

To enhance the qualitative results gathered from the reflective logbooks, learners also filled out the Metacognitive Awareness Listening Questionnaire (MALQ) prior to and following the extended listening program. While the reflective logbooks captured the learners' metacognitive thoughts during listening tasks, the MALQ supplied descriptive insights concerning the learners' self-reported metacognitive awareness at two points in time.

Table 5 displays the MALQ scores descriptively before and after the long-term listening program.

Table 5*Descriptive MALQ Scores Before and After the Longitudinal Listening Programme*

Strategy Category	Items	Possible Range	Initial Mean	SD (Pre)	Final Mean	SD (Post)
Problem-solving	6	1-6	4.47	0.58	4.52	0.55
Planning-evaluation	5	1-6	4.14	0.61	4.20	0.57
Mental Translation	3	1-6	4.43	0.66	4.31	0.63
Directed Attention	4	1-6	3.99	0.72	4.34	0.60
Metacognitive knowledge	3	1-6	3.71	0.68	4.59	0.56

As illustrated in Table 5, minor descriptive differences were noted across the five dimensions of the MALQ. The dimension of Person Knowledge had the highest average score at the program's conclusion, followed by Directed Attention. In contrast, Mental Translation recorded a slightly lower average score than during the initial measurement. The other dimensions showed only small descriptive differences between the two assessment points.

Due to the study involving a relatively limited sample size ($n = 18$) and following an exploratory framework, these results are only presented in a descriptive manner. No inferential statistical methods were applied, so the differences seen should not be considered statistically significant alterations. Instead, the MALQ results provide additional descriptive support alongside the qualitative data collected from the reflective logbooks.

The descriptive trend observed in the MALQ generally aligned with what learners wrote in their reflections. The logbooks contained many references to learners becoming more aware of their listening processes, identifying listening difficulties, monitoring their comprehension and noting the strategies used in repeated listening tasks. Similarly, the small decrease in the average Mental Translation score corresponded to the reflections of several learners who said that they paid more attention to key phrases, contextual clues and overall meaning rather than translating word by word.

However, there remained individual differences. Some learners reported an increased awareness of their

listening habits, but others still reported difficulties with unknown vocabulary, fast speech and different accents. These differences imply that learners' metacognitive awareness varied among learners.

To summarize, the qualitative and quantitative data provide different but complementary insights into the learners' listening experiences. The reflective logbooks offered rich descriptions of the learners' metacognitive reflections during the listening project, whereas the MALQ provided descriptive data of the learners' self-reported metacognitive awareness before and after the project. Rather than establishing causal relationships, the two sources of evidence provide a descriptive comparison of the learners' metacognitive awareness across the time span of the longitudinal study.

Finding 6: Integration of Quantitative and Qualitative Findings

This study integrated qualitative and quantitative results to answer the four research questions, in line with the qualitatively dominant embedded longitudinal mixed methods design. The quantitative data provided a foundation for the learners' listening anxiety, tracked its change over time, and supplied descriptive information on their metacognitive awareness. Conversely, the qualitative data from the reflective logbooks illuminated how the learners interpreted these experiences and articulated their reactions to the listening challenges encountered during the teaching period. Joint display of integrated mixed methods findings are presented in Table 6.

Table 6*Joint Display of Integrated Mixed Methods Findings*

Research Question	Quantitative Findings	Qualitative Findings	Integrated Interpretation
RQ1. What was learners' baseline listening anxiety?	FLLAS indicated an overall moderate level of listening anxiety, with worry obtaining the highest mean score.	Learners described common concerns before and during listening as uncertainty, unfamiliar vocabulary and rapid speech.	That baseline anxiety was driven more by a concern about understanding spoken English, rather than anticipatory fear alone.

RQ2. How did listening anxiety fluctuate over time?	The anxiety temperature charts were more variable when listening in class than when listening individually.	Learners reported that their emotional experiences differed across listening sessions depending on the perceived demands of specific tasks.	Listening anxiety was characterized as dynamic and context-dependent across the longitudinal learning period.
RQ3. How were baseline anxiety and situational anxiety related?	FLLAS provided a stable baseline profile and anxiety temperature charts recorded session-to-session variation.	The learners' reflections suggested similar levels of anxiety at baseline, but different emotional experiences in different listening situations.	The two instruments captured complementary dimensions of listening anxiety rather than identical constructs.
RQ4. How did metacognitive awareness emerge during repeated listening activities?	MALQ showed descriptive differences between the initial and final measurements across several metacognitive dimensions.	Reflective logbooks revealed emotional, process, problem, and evaluative awareness together with descriptions of listening strategies.	Qualitative findings provided detailed explanations of learners' reported metacognitive experiences, while the MALQ offered complementary descriptive support.

In conclusion, the integration of both quantitative and qualitative evidence helps to better understand the findings, as it illustrates how various data sources captured different elements of learners' listening experiences. Quantitative techniques offered broad patterns and trends over time, while qualitative data provided more in-depth insights into how learners saw, experienced and thought about these interactions. Taken together, these promising findings satisfy the research goals and are in line with the exploratory objectives of the qualitatively dominant integrated longitudinal mixed methods technique.

Discussion and Conclusion

The current research was designed to explore the rise of listening anxiety and metacognitive awareness in a mixed methods approach that is more qualitative among EFL learners in a longitudinal design. In this research we traced and recorded learners' thoughts about listening anxiety by initial anxiety profiles (FLLAS), frequent anxiety level checks, metacognitive awareness assessments (MALQ) and reflective learning diaries in the context of repeated listening tasks. The results showed that the learners had a modest amount of listening anxiety in the beginning, different levels of anxiety in some listening sessions, and wrote more and more metacognitive remarks in their notebooks. Results show that the learners' emotions and awareness of their thinking changed at the same time during the instruction. This indicates that the development of listening ability is related to the fusion of cognitive, emotional and self-regulatory components rather than direct causal relationship among these components.

The results of the longitudinal anxiety charts indicated that the learners had different anxiety

tendencies throughout the listening sessions, supporting the earlier hypothesis that listening anxiety is a context-dependent phenomenon rather than a fixed trait (Horwitz et al., 1986). In general, the learners reported greater levels of anxiety in classroom listening activities and lower and more consistent anxiety in solo listening exercises. The disparities may be explained by the strong evaluative pressure of the classroom activities, where the learners had to complete the listening tasks within a specified time constraint, which is similar with the findings of (Chang, 2008).

But these discrepancies should not be interpreted only as a consequence of the anxiety monitoring charts. There may be other explanations. As the research went, learners may have been more acquainted with listening skills, more confident with repeated exposure, or more comfortable with the educational atmosphere and teacher expectations. Moreover, it is possible that the variable difficulty level of the listening materials in the two sessions may have influenced the variation in the reported anxiety levels. The current findings should thus be seen as indicative of the fluctuation of listening anxiety over time in real classroom settings and not as proof that the monitored instrument itself led to any reduction in anxiety.

The reflective learning diaries showed a progressive elaboration of the learners' listening problems, strategies used, emotional reactions and self-assessment throughout the study. These insights indicate that learners appeared to provide increasingly detailed descriptions of their listening experiences. Such findings are in line with previous research that highlights the benefits of reflective learning logs have been connected with higher levels of metacognitive engagement in prior studies (Judy Shih, 2021; Lee & Cha, 2017).

Crucially, this study offers no indication that changes in listening anxiety led to the rise in metacognitive awareness, or vice versa. Instead, the longitudinal data demonstrates that both emotional experiences and metacognitive reflections developed in tandem during the same instructional period. The synchronized progress of these two processes corresponds to theoretical viewpoints put forth by Vandergrift & Goh (2012), who emphasize the interaction between emotional monitoring and metacognitive regulation in listening, rather than a direct causal link.

The evidence collected also shows that learners referred more frequently to actions related to self-regulated learning such as checking their understanding, identifying problems in listening, choosing suitable strategies and assessing their own results. While these insights cannot confirm direct cause and effect, they imply that awareness appeared alongside reports of behaviours associated with self-regulated learning (Vandergrift & Goh, 2012; Zimmerman, 2002).

The results add to a process-oriented approach of EFL listening in that they illustrate that listening anxiety and awareness of one's own cognitive processes are not static but fluid and malleable. The continuing use of anxiety rating charts and reflective learning diaries allowed for the monitoring of the emotional states and mental processes of learners over a series of listening tasks. The research does not give evidence of solid causal links between anxiety, metacognitive awareness, and self-regulated learning, but rather indicates that such characteristics co-evolve in the same educational setting. Further longitudinal studies with larger samples that also include control groups and use experimental or cross-lagged designs are required to further investigate the direction of the connections.

Implications And Recommendations

The current results have some practical implications for teaching EFL listening abilities however the experimental character of the present research is recognised. Teachers should ask learners to self-assess their anxiety immediately following listening activities to document their emotional reactions during learning sessions. Furthermore, guided-reflective listening notebooks might be used to aid learners in articulating their experiences, problems faced while listening, strategies they applied and their self-assessments of their own performance.

Teachers may also model reflective listening by explicitly discussing things like anticipating content, spotting key words, focusing attention and making notes before or after listening exercises. In addition, low-stakes individual listening activities may provide a chance for learners to improve their listening skills without the pressure that might be associated with classroom evaluation.

The Metacognitive Awareness Listening Questionnaire (MALQ) may be used as a reflecting tool at intervals to initiate discussions about listening strategies, rather than as a diagnostic instrument.

But these statements need to be treated with caution since this study did not include any control group or experimental technique. Further experimental studies in controlled settings are required to reveal if these training modalities produce considerable gains in listening anxiety, metacognitive awareness or listening skills.

Limitations And Future Research

This research provides useful insights into the development of EFL learners' listening anxiety and metacognitive awareness. However, there are a number of limitations that should be taken into mind in interpreting the results.

First, this study was only performed with 18 learners and they were all from same English Language Education Program at a private institution in East Java, Indonesia. The smaller sample was suitable for the mixed methods approach in terms of its emphasis on in-depth study rather than broad statistical generalisation. However, the results cannot be extrapolated to larger populations of EFL learners in other educational, cultural or institutional situations. Future research should examine larger and more varied samples from a variety of colleges to see if the results can be generalised.

Next, the research employed a one group longitudinal design without a comparison or control group. Thus, the changes seen in the reported levels of listening anxiety and metacognitive awareness of the learners should not be considered as indicative of cause-effect relationships or the impact of any treatments. Other factors such as greater familiarity with the listening exercises, repetition of practice, acclimatisation to the classroom atmosphere, instructor aid or changing task difficulty levels may have contributed to the developing patterns seen. Future research based on quasi-experimental or

experimental designs may provide more rigorous evidence for these associations.

Moreover, the study was mainly based on self-reported data, which were collected thru instruments such as Foreign Language Listening Anxiety Scale (FLLAS), Metacognitive Awareness Listening Questionnaire (MALQ), anxiety temperature charts and reflective learning diaries. Although these instruments have been validated in previous research and were chosen to capture learners' subjective experiences, self-reported data may be subject to response bias, memory issues and social desirability. Future studies could strengthen the validity of the findings by using self-report methods in combination with classroom observations, stimulated recall methods, learning analytics, physiological measurements or think-aloud techniques.

The study also concentrated on the emotional and metacognitive development of learners, but there was no direct testing of the development of listening skills using standardized tests or other objective measures of performance, so the present findings cannot confirm whether the reported changes in anxiety and metacognitive awareness were associated with real improvement in listening ability. Therefore, upcoming studies should include ongoing evaluations of listening performance to determine how emotional and metacognitive growth correlates with listening success.

Established methodologies were used but caution should be used in interpreting psychometric aspects of these assessments in this sample because of the extremely small number of learners. Internal consistency metrics for smaller groups may be less reliable than internal consistency measures for larger groups. Future research with bigger samples should test the validity and reliability of these tools in various EFL environments.

Furthermore, the potential influence of the researcher-participant interaction should be considered as a possible bias. The teacher or authority position of the researcher may have influenced the learners and their reflective feedback may have been influenced by the desire to provide replies that they thought to be socially acceptable, despite being guaranteed of confidentiality. Future study may mitigate this risk by using independent researchers in data collecting or by

adopting additional measures to secure the identity of learners.

In short, the MALQ was administered before and after the extended listening activities, but the number crunching was essentially descriptive. No statistical tests were conducted to see whether any improvements in metacognitive awareness were statistically significant. Thus the quantitative data should be interpreted as descriptive data and not as confirmatory data. Future research with larger samples of participants should use inferential tests such as paired-samples t-tests, repeated-measures analyses or longitudinal growth models to give evidence of developmental change with more statistical power.

However, despite these limitations, the current research adds to the increasing literature that adopts a process-oriented view on EFL listening. In addition, the study contributes to our knowledge of learners' perceptions of the development of emotional responses and metacognitive awareness in the course of ongoing listening tasks using anxiety temperature charts, reflective learning journals, FLLAS and MALQ in a predominantly qualitative longitudinal mixed methods design. Additional study using this method in different educational situations, learner populations, and teaching styles will improve the understanding of the dynamic interplay between listening anxiety, metacognitive awareness, and self-regulated learning.

The results show that anxiety thermometer charts and reflective logbooks offered chances for learners to describe changes in perceived anxiety, listening difficulties, application of strategies and metacognitive reflections in repeated listening exercises. As the research used a single-group longitudinal design, these results should not be construed as proof of these methods improving listening anxiety or metacognitive awareness. Both sources appear to be quite promising for the development of metacognitive awareness and self-control in listening abilities. More study, however, is needed with larger samples of learners and control groups.

Acknowledgments

The authors express their gratitude and appreciation to all participants.

Declaration of Interest

The authors of this article declared no conflict of interest.

Ethical Considerations

The study protocol adhered to the principles outlined in the Declaration of Helsinki, which provides guidelines for ethical research involving human participants. Ethical considerations in this study were that participation was entirely optional.

Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

Funding

This research was carried out independently, with personal funding, and without financial support from any governmental or private institution or organization.

Authors' Contributions

All authors equally contributed to this study.

References

- Al-Shammari, H. G. (2020). The Impact of Strategy Instruction on Iraqi EFL Learners' Listening Comprehension and Metacognitive Strategy Use. *MEXTESOL Journal*, 44(4), n4. <https://mextesol.net/journal/public/files/560dba8efe40de3619db3ec849bf7c57.pdf>
- Chang, A. C.-S. (2008). Sources of listening anxiety in learning English as a foreign language. *Perceptual and Motor Skills*, 106(1), 21-34. <https://doi.org/10.2466/pms.106.1.21-34>
- Creswell, J. W., & Clark, V. L. P. (2007). *Designing and conducting mixed methods research*. sage. <https://psycnet.apa.org/record/2006-11884-000>
- Goh, C. C. (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](https://doi.org/10.1016/S0346-251X(99)00060-3)
- Graham, S. (2006). Listening comprehension: The learners' perspective. *System*, 34(2), 165-182. <https://doi.org/10.1016/j.system.2005.11.001>
- Graham, S., & Macaro, E. (2008). The role of metacognition in second/foreign language teaching and learning. *Language Learning*, 58(4). <https://doi.org/10.1111/j.1467-9922.2008.00478.x>
- Horwitz, E. K., Horwitz, M. B., & Cope, J. (1986). Foreign language classroom anxiety. *The Modern language journal*, 70(2), 125-132. <https://doi.org/10.1111/j.1540-4781.1986.tb05256.x>
- Judy Shih, H.-c. (2021). The use of individual and collaborative learning logs and their impact on the development of learner autonomy in the EFL classroom in Taiwan. *Innovation in Language Learning and Teaching*, 15(3), 195-209. <https://doi.org/10.1080/17501229.2020.1737703>
- Kim, J. (2002). Anxiety and foreign language listening. *ENGLISH TEACHING (영어교육)*, 57(2), 3-34. <https://scholar.kyobobook.co.kr/article/detail/4010023014630>
- Kimura, H. (2008). Foreign language listening anxiety: Its dimensionality and group differences. *JALT journal*, 30(2), 173-196. <https://doi.org/10.37546/JALTJJ30.2-2>
- Lee, Y.-J., & Cha, K.-W. (2017). Listening logs for extensive listening in a self-regulated environment. *The Asia-Pacific Education Researcher*, 26(5), 271-279. <https://doi.org/10.1007/s40299-017-0347-0>
- Tanewong, S. (2019). Metacognitive pedagogical sequence for less-proficient Thai EFL listeners: A comparative investigation. *Relc Journal*, 50(1), 86-103. <https://doi.org/10.1177/0033688218754942>
- Vandergrift, L. (1997). The comprehension strategies of second language (French) listeners: A descriptive study. *Foreign language annals*, 30(3), 387-409. <https://doi.org/10.1111/j.1944-9720.1997.tb02362.x>
- Vandergrift, L. (2004). 1. Listening to learn or learning to listen? *Annual review of applied linguistics*, 24, 3-25. <https://doi.org/10.1017/S0267190504000017>
- Vandergrift, L., Goh, C. C., Mareschal, C. J., & Tafaghodtari, M. H. (2006). The metacognitive awareness listening questionnaire: Development and validation. *Language Learning*, 56(3), 431-462. <https://doi.org/10.1111/j.1467-9922.2006.00373.x>
- Vandergrift, L., & Goh, C. C. M. (2012). *Teaching and learning second language listening: Metacognition in action* (Vol. 12). Routledge New York. <https://www.routledge.com/Teaching-and-Learning-Second-Language-Listening-Metacognition-in-Action/Goh-Vandergrift/p/book/9780367254254>
- Zimmerman, B. J. (2002). Becoming a self-regulated learner: An overview. *Theory into practice*, 41(2), 64-70. https://doi.org/10.1207/s15430421tip4102_2