e-ISSN: 2600-7568

Available online at
https://gadingssuitm.com/index.php/gadingss

GADING Journal for the Social Sciences 29(1) 2026, 265 – 283

GADING Journal for the Social Sciences

Listening Strategies and Processes during Paired Listening among Pre-University ESL Learners: A Qualitative Case Study

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ARTICLE INFO

Article history:
Received 25 December 2025
Revised 17 March 2026
Accepted 31 March 2026
Online first
Published 15 April 2026

Keywords:
ESL learners
listening strategies
listening processes
paired listening
peer interaction

DOI:
https://doi.org/10.24191/gading.v29i1.767

ABSTRACT

In many Malaysian ESL classrooms, listening instruction remains dominated by conventional, product- and individual-oriented approaches that limit listening strategy development through peer support and process-oriented engagement. This qualitative pilot study investigates listening strategies and processes during paired listening instruction among two pre-university ESL learners. Grounded in sociocultural learning theory and Vandergrift's Metacognitive Pedagogical Sequence instruction, paired listening instruction integrated collaboration throughout pre-, while-, and post-listening stages. Following three practice sessions (360 minutes), one paired listening task was video-recorded and verbal interactions were analysed using deductive-inductive content analysis. Findings reveal that learners employed metacognitive strategies (70%) more than cognitive strategies (30%), with monitoring dominating (92%) metacognitive strategy use. Cognitive strategies like information recall and elaboration consistently supported metacognitive processes. Eight metacognitive subcategories emerged from verbal protocols: directing attention, initiating comprehension checks, verifying understanding, judging comprehension, acknowledging gaps, identifying difficulty sources, negotiating understanding modifications, and monitoring task progress. Paired interaction enabled peer scaffolding where partners prompted metacognitive reflection and provided external support for comprehension construction. The study demonstrates that paired listening makes covert cognitive processes observable through obligatory verbalisation, offering methodological advantages for accessing listening processes. Despite its limitations (small sample size, short duration, single task), the findings suggest that paired listening provides a viable process-based alternative to product-oriented approaches in Malaysian ESL contexts, with implications for large mixed-proficiency classrooms where peer support may compensate for limited teacher attention.

1. INTRODUCTION

Listening has undeniably received little attention in many Malaysian ESL language classrooms until the recent past. With the implementation of the Common European Framework of Reference for Languages (CEFR) in the Malaysian primary and secondary English Language syllabus in 2013, listening has been included as a skill to be tested alongside speaking, reading, and writing, while it is a component tested in

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the Malaysian University English Test (MUET) at post-secondary (form-six, pre-university, and pre-degree) levels since its inception in 1999 (Nurul Farehah & Mohd Sallehhudin, 2017). Despite the growing recognition of its importance in facilitating language learning, listening has not received the same level of emphasis as the other language skills in many language classrooms (Nair et al., 2014; Nor Syazana & Azlina, 2020; Nur Anneliza et al., 2020).

In many listening classrooms, the teaching and learning of listening has commonly utilised the conventional, product- and individual-oriented approach. Students are typically required to simultaneously listen and respond to listening comprehension questions individually within an allocated time, after which their answers would be scored or discussed with the class, and the lesson ends there. Such lessons do not only focus on the product of listening in terms of the scores obtained, but students are often left to deal with their issues in listening on their own which can be daunting for learners lacking proficiency in the target language (Ardi, 2015; Bloomfield et al., 2010; Chang, 2018; Goh, 2008). Teacher- and peer-support tend to be minimal as the students do not normally get the opportunity engage in a more learner-centred listening activity involving pair work, for example, which can potentially develop their listening skills (Fauziana & Parilah, 2020; Mohana & Shamara, 2012; Nurul Farehah & Mohd Sallehhudin, 2017; Rhessma & Nur Ehsan, 2020).

Additionally, large classes with mixed-proficiency students in many Malaysian classrooms pose significant challenges for listening instruction as less-proficient learners often struggle to keep pace with their more proficient peers during individual-oriented listening tasks (Bett, 2009, as cited in Husin et al., 2022; Cross, 2011, 2018; Dennistoun, 2023; Goh, 1998; Graham & Macaro, 2008; Sarimah, 2022; Shamim & Coleman, 2018). This challenge is further compounded by teachers' difficulties in accommodating varying proficiency levels and learning paces within the same instructional space (Al-Subaiei, 2017; Le & Renandya, 2016; Nguyen, 2022). Hence, it is not a surprise that the less-proficient students typically remain as passive listeners who receive little to no support from their teachers or peers when faced with issues in listening comprehension (Ardi, 2015). Consequently, these students may continue to struggle when pursuing studies at the tertiary level where listening skills contribute to their success in understanding lectures or any auditory materials in English (Irma & Mohamed Jafre, 2020; Nurul Farehah & Mohd Sallehhudin, 2017).

Recent research in listening has focused on strategy-based approaches in equipping learners with listening strategies, particularly the metacognitive strategies in attempts to promote learner autonomy where learners are able to monitor, control and manage their listening processes and development. One strategy-based listening approach that has gained much attention in recent years is Vandergrift's (2004) Metacognitive Pedagogical Sequence (MPS) listening instruction framework which focuses on guiding learners through listening processes in three stages: pre-, while- and post-listening. The instruction emphasises the use of metacognitive strategies of planning, monitoring and evaluating in regulating cognition to enhance listening outcomes (Vandergrift, 1997; Goh & Vandergrift, 2022).

Studies on metacognitive strategy in listening have mainly adapted the MPS listening instruction framework in many variations, but the cyclical stages and use of peer collaboration as part of the listening activities remained in most studies and integrated in various extent (Coskun, 2010; Goh & Vandergrift, 2022). In many of these studies, the focus has centred on individual gains, examining strategy use and listening performance as solitary, internalized processes with minimal reference to the contribution of peer collaboration that was integrated during listening instructions (e.g. Hsieh, 2023; Jin, 2020; Krishnan et al., 2020; Robillos & Bustos, 2017; Swaran Singh et al, 2022). As such, the collaborative dimensions of listening, particularly how learners negotiate and deploy strategies when listening with a peer, remain comparatively under-researched (Bozorgian & Fakhri Alamdari, 2017; Cross, 2011, 2018; Shamsi & Bozorgian, 2024). In other words, listening was primarily viewed and treated as an individual-oriented activity while employing the metacognitive strategy listening instruction. Hence, research that examines the verbal protocols of peer interaction and delves into the listening processes that occur during pair or

https://doi.org/10.24191/gading. v29i1.767

group setting as integrated within the MPS listening instruction construct is still very much wanting, particularly in Malaysian listening context.

As such, this study aims to investigate the listening strategies and processes employed by Malaysian pre-university ESL learners during paired listening instruction by adapting the MPS listening instruction framework. Specifically, this study addresses the following research questions:

i. What listening strategies do pre-university learners in pairs employ during paired listening?
ii. What listening processes emerge from the verbal pair interaction between learners during paired listening?

2. LITERATURE REVIEW

Recent research in listening has highlighted the prominence of metacognitive strategy listening instruction in teaching listening strategies in the language classrooms. This is a shift from the conventional approaches that mainly focus on the product of listening to a more process-oriented approach as the traditional techniques popular for teaching listening are considered resistant to change, thus no longer effective (Goh, 2008). Besides, the focus on the listening product instead of the processes have turned listening activities into mini-listening tests which do not prepare learners with strategies necessary to improve and gain control over their listening processes (Field, 2008; Goh, 2008; Sheerin, 1987).

2.1 Theoretical Foundations

The process-based metacognitive strategy listening approach is mainly guided by Flavell's (1979) metacognitive concept of thinking about one's thinking. Metacognition refers to individuals' knowledge and awareness about factors that affect the course and outcome of cognitive processes (also known as metacognitive knowledge), and involves the monitoring of own memory, comprehension and other cognitive enterprises (also known as metacognitive regulation) which are commonly conceptualised in many current studies (Brown, 1987; Flavell, 1979; Goh, 2008). Metacognitive regulation is also regarded as metacognition in action as it involves the actual process-based metacognitive activities that translate the metacognitive knowledge into sets of regulating thoughts that will facilitate comprehension through the planning, monitoring and evaluating strategies (Goh, 2010; Goh & Vandergrift, 2022).

Metacognitive strategies have been distinguished from cognitive strategies but during listening processes, these strategies co-exist and are interchangeable whereby cognitive strategies facilitate learning and task completion, while metacognitive strategies monitor these processes (Flavell, 1976; as cited in Noushad, 2008). Specifically, metacognitive strategies entail self- awareness and reflection of the learning process in terms of task- and strategy-use, while the cognitive strategies are behaviours, techniques or mental activities which are task-content related and are employed to directly handle learning materials such as inferencing, repeating, translating, performing deduction, elaboration and notetaking without explicit reflection of such behaviours, techniques or thoughts (O'Malley et al., 1987).

Research in metacognitive strategy instruction has largely subscribed to Vandergrift's (2004) metacognitive pedagogical sequence (MPS) listening instruction, reflecting the beliefs that teaching listening needs to follow a process-based approach to teach strategies in the classroom to promote effective listening (Bozorgian, 2014; Goh & Vandergrift, 2022). The MPS listening instruction provides specific guidelines for listeners to utilise metacognitive processes throughout its three stages in listening: pre-, while-, and post-listening. Peer collaboration is commonly integrated within the listening stages where learners are expected to interact and collaborate during listening activities. It aims to provide learners the opportunities to cooperate, share knowledge, beliefs, and skills in learning to listen (Goh, 2008, 2010; Goh & Vandergrift, 2022; Teng, 2023). Table 1 summarises Vandergrift's (2004) metacognitive pedagogical sequence listening instruction framework (Goh & Vandergrift, 2022) which has since seen many variations in many studies.

https://doi.org/10.24191/gading. v29i1.767

Table 1. Stages in Metacognitive Pedagogical Sequence Listening Instruction (Goh & Vandergrift, 2022)

Stage	Activities	Metacognitive Processes
Pre-Listening	Planning / predicting stage	Planning
First Listen	First verification stage, plan with peers for second listen	Monitoring, evaluation, planning
Second Listen	Second verification stage, text reconstruction or other comprehension activity	Monitoring, evaluation, problem-solving
Third/ Final Listen	Third listen (with or without transcript) – Final verification	Monitoring, problem-solving
Post-Listening	Reflection and goal setting	Evaluation, planning

2.1.1 Sociocultural Learning Theory

In line with the integration of peer collaboration in MPS listening instruction, this study adopts a paired listening approach, where pair work constitutes the primary activity throughout all stages of the listening instruction. As such, the paired listening instruction framework adapts Vandergrift's (2004) MPS model by incorporating collaborative work throughout all stages. During paired listening, learners work together through pre-, while-, and post-listening stages, using peer interaction as the central mechanism for strategy development.

The paired listening instruction is informed by the socio-cultural learning theory which emphasises that individuals' cognition significantly developed through interaction within the social and cultural environment including conditions found within instructional settings, and mediated through cultural tools such as language, listening instructions and activities in the classrooms (Engestrom, 1987; as cited in Lantolf et al., 2015). It is based on the belief that higher mental functions such as metacognitive regulation often start between people (inter-mental plane) and move into the individual's mind (intra-mental plane), and that individuals are neurobiologically and readily equipped with lower mental processes. Peer interactions during joint activities function as the external social source of verbalised introspection and offer scaffolding opportunities beyond learners' zone of proximal development (ZPD), hence, facilitative of cognitive regulation. Thus, in this study, it is believed that paired listening instruction can potentially promote higher mental operations, as well as the ability to regulate these mental processes during listening through peer interactions. As such, despite mental processes being individually-oriented, it is believed that they are not confined to the cognitive domains of an individual. Rather, they are supported by peer interactions and are mediated and manifested verbally through language use.

2.2 Empirical Research on Metacognitive Strategy Listening Instruction

Many earlier studies have adopted the MPS listening instruction framework in individual listening context. Pair work or small group work may or may not have been integrated as part of its activities as it was rarely highlighted in most of these studies. Additionally, these studies have often reported learners' perceived strategy use during listening processes based on self-report questionnaires, reflective journals, diaries, interviews, while a few utilised think-aloud verbal protocols, focusing on experimental or quasi-experimental methods (Al-Shammari, 2020; Chero, 2023; Dalman & Plonsky, 2022; Fahim & Fakhri Alamdari, 2014; Ngo, 2019).

With specific reference to Malaysian ESL context, research in listening has received growing interest in the recent past although it is still considered to be at its infancy compared to research in other skills. The past one decade has seen a few studies focusing on metacognitive strategies in listening and their impact on learner perceived metacognitive awareness and listening comprehension performances (e.g. Aiza et al., 2017; Jin, 2020; Krishnan et al., 2020; Nair et al., 2014; Nur Anneliza et al., 2020; Seyedehsima et al., 2022). Findings from these studies have generally reported learners' positive perception of metacognitive listening instruction, and the impact of the metacognitive strategy instruction on learners' perceived strategy use and listening achievement. For instance, Seyedehsima et al. (2022) reported that there was a slight difference in the frequency of strategy use among the less- and more-proficient ESL university students, and students focused more on performance evaluation than strategy evaluation. Meanwhile, a study by Aiza

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et al. (2017) focused on self-learning where students practiced using metacognitive strategies on their own based on notes supplied by the teacher and found positive gains in students' strategy use in planning and evaluation and listening achievement. Jin (2020) reported positive impact of the metacognitive strategy instruction in terms of increased use of metacognitive strategies of problem-solving, monitoring and evaluation among less-proficient learners. Swaran Singh et al. (2022) and Nur Anneliza et al. (2020), however, found that the use of monitoring strategies among ESL students were constrained by cognitive overload, linguistics problems and time constraints during individual listening tasks. Nevertheless, Nair et al. (2014) earlier found that students used a wide array of cognitive and metacognitive strategies during listening through a think-aloud verbal protocol to capture ESL students' listening processes. Nonetheless, these studies, like most other research in listening, primarily focused on listening as an individual-oriented activity with little reference to peer interactions that may have taken place during the metacognitive listening instruction.

Whilst most metacognitive listening research emphasises individual processes, a small but growing body of work examines the collaborative dimensions. These studies report three primary benefits which include comprehension monitoring through peer checking, increased motivation through social engagement, and strategic scaffolding through peer modelling (Cross, 2009, 2010; Goh & Taib, 2006; Krishnan et al., 2020; Li et al., 2022; Robillos & Bustos, 2022; Tanewong, 2019). However, these studies provide limited detail about the specific listening processes occurring during peer interaction, typically reporting collaboration as a secondary finding alongside primary foci on individual outcomes. For instance, Krishnan et al. (2020) very briefly reported that through focus interview, peer discussion was regarded as a strategy for ESL students to check understanding with their peers during listening. Robillos & Bustos (2022), through an interview, also briefly reported that collaborative activities within the metacognitive strategy instruction assisted adult EFL learners in sharing understanding of task, thus increasing their confidence level. Sedhu et al. (2017) found that metacognitive strategy listening approach allowed students to check and compare answers, as well as correct errors after task completion, either done individually or with peers. Meanwhile, a study by Li et al. (2022) reported on the motivation level of learners to engage in peer discussion, whereby more proficient dyads demonstrated higher motivation during peer discussion, as opposed to the less-proficient dyads who rarely engage in discussion for the lack of understanding of listening input, and the less-proficient partner merely copied answers from the more-proficient partner with very minimal attempt to discuss. These accounts, however, offer limited insight into the listening strategies used and processes that occurred during peer interaction.

A more focused study was offered by Cross (2009, 2010) who reported on peer interaction during metacognitive listening instruction among Japanese adult EFL advanced learners, and revealed that the learners were able to share understanding and check comprehension, thus monitor performance that led to adjustments in task approach and improvements in text-, comprehension- and strategy-awareness and use. The collaborative listening activities served to consolidate and guide learners' strategy use during listening processes. Likewise, Tanewong (2019) found that less-proficient EFL learners had more opportunities to stay focused on comprehension checking, and evaluation of comprehension during group discussion. Likewise, Shamsi and Bozorgian (2024) suggested that pair-based listening activities enhanced learners' metacognitive awareness and listening comprehension by enabling them to discuss strategies, identify problems, and co-construct understanding. These findings agree with Goh's (2010) idea that metacognitive strategy listening instructions offer many opportunities for learners to cooperate with one another to share their knowledge, beliefs, and skills in listening. Thus, with limited studies on peer interactions during metacognitive strategy listening instruction, Cross' (2009, 2010, 2018) earlier research on metacognitive awareness and peer interaction offers the possibility of considering listening as a joint activity instead of a mere individual-oriented one.

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3. METHODOLOGY

3.1 Research Design

This pilot project employs a qualitative case study research method. It is particularly apt in this study that aims to investigate listening processes and strategy-use which may not be possible through other means like a survey report (Cohen et al., 2018). It also allows for in-depth exploration of learners' listening processes and strategy-use in a real-life classroom context through detailed descriptions and interpretations of occurrences. As suggested by Yin (2018), a case study addresses the question 'what', and it is a significant and legitimate method of research that exists in its own rights to investigate a contemporary phenomenon or case within its real-life context (Adelman et al., 1980; as cited in Cohen et al., 2018; Merriam & Tisdell, 2016; Yin 2018).

3.2 Participants

Two male Form Six students, both aged 19, volunteered to participate in this study, following teacher approval. Selection criteria included enrolment in the MUET preparation course, SPM English grade (indicating proficiency levels based on Malaysian examination standards), willingness to engage in peer discussion, and availability for all research sessions. Table 2 presents detailed participant profiles.

Table 2. Participant Profiles

Characteristics	Student A	Student B
Age	19 years	19 years
Gender	Male	Male
SPM English Achievement	A pass (low proficiency level)	A Pass (low proficiency level)
MUET Preparation level	Year 1, Semester 1	Year 1, Semester 1
First Language (L1)	Bahasa Malaysia	Bahasa Malaysia
Previous paired learning experience in listening	Minimal	Minimal

A similar-proficiency pairing was selected to minimise power imbalances that might hinder balanced participation. As suggested in previous research, mixed-proficiency pairs may result in dominance patterns where less-proficient partners defer to more-proficient ones (Li et al., 2022), potentially limiting authentic strategy use by both students. While mixed-proficiency pairing might offer different scaffolding opportunities, similar-proficiency pairing, in this case the low-proficiency pairing, was deemed more appropriate for this exploratory pilot study to encourage equal participation.

While two participants constitute a small sample, this number is acceptable for an exploratory case study which is treated as a pilot to other observational research (Cohen et al, 2018). Besides, the focus on intensive analysis of verbal protocols and detailed description of listening processes that prioritises depth over breadth further justifies the sample size for this pilot investigation (Cohen et al., 2018; Yin, 2018).

3.3 Data Collection

Data were collected through observation of verbal protocol between the students during paired listening instruction. Jottings or observation field notes were also used by the instructor-researcher as a supplementary data source to record contextual information, reflexive observations, and information gathered through informal conversation during the study.

3.3.1 Listening Practice Sessions

Prior to conducting the observation of learner verbal interactions, the students went through three sessions of listening practices (360 minutes) using paired listening instruction. This was done to expose them to listening strategies, specifically metacognitive strategies, whilst familiarising them with peer discussion

during paired listening which they might feel unaccustomed to since listening lessons have traditionally been individual-oriented.

During the listening practice, the instructor-researcher exposed the students explicitly to metacognitive listening strategies involving planning, monitoring, and evaluation, guided by a sample paired listening lesson plan and Vandergrift's (1997) taxonomy of metacognitive listening strategies, used as a teacher-supplementary guide sheet in teaching. The sample lesson plan based on the stages and processes in paired listening instruction had been reviewed and approved by three experienced MUET and English language instructors.

The students were also supplemented with a student-listening guide sheet based on the stages and processes in the paired listening instruction to guide them throughout their peer discussions. In pairs, the students went through the listening processes and practiced using metacognitive strategies in completing listening practices as demonstrated by the instructor-researcher. Listening practice materials used were those from the commercially produced MUET revision book, *Ace MUET* by Choo et al. (2023) which was easily available in the market. The listening materials cover a wide range of topics and text types which are familiar to the students and have varied range of difficulty from CEFR A2 to B2 levels that reflect the actual tasks in MUET listening test. Table 3 shows the stages in paired listening instruction used in this study.

Table 3. Stages and Processes in Paired Listening Instruction

Stage	Processes	Typical Duration
Pre-listening	Planning/Predicting ▪ In pairs, students predict keywords/plan how to handle listening tasks once topic and text type are known	3-5 min
While-listening		
First listen	▪ Listen to verify predictions/hypotheses ▪ In pairs, compare understanding, modify as required, establish common understanding of text and tasks, answer listening task	10 min
Second listen	▪ In pairs, listen and review initial understanding/answers, make corrections, reconstruct understanding when necessary	10 min
Final listen	▪ In pairs, listen and evaluate choices of answers, revise when necessary, and decide on final answers	10 min
	▪ Whole-class discussion of correct answers	5 min
Post-listening	▪ In pairs, verify answers, reflect and evaluate the effectiveness of strategies used, and consider strategies for next lessons	

3.3.2 Observation of Peer Interaction

Following three practice sessions (360 minutes total), the students completed one paired listening task under observation using the same paired listening instruction outlined in Table 3. However, at this point, there was no interference from the instructor-researcher. Based on the initial listening practice sessions, it was evident that the students were more comfortable expressing their thoughts in their mother tongue (Bahasa Malaysia), although they attempted to converse in English. As such, the students were permitted to use Bahasa Malaysia during discussion to facilitate expression of complex ideas, consistent with research showing L1 use supports cognitive management during collaborative tasks (Swain & Lapkin, 2002). This decision prioritised accessing metacognitive processes over maintaining English-only interaction.

At the outset of data collection, the students were reminded that the focus of observation was on understanding their natural discussion process, not evaluating their English proficiency or listening performance to minimise observer paradox effects (Flick, 2009; as cited in Cohen et al., 2018). They were assured that the goal was learning about paired listening processes, not assessing their abilities. The three prior practice sessions also served to familiarise the students with being recorded and discussing in pairs, reducing novelty effects during data collection.

https://doi.org/10.24191/gading. v29i1.767

In pairs, the students used the same student-listening guide sheet, listened and collaboratively responded to a listening task (part 4), derived from the 2021 MUET listening test (Malaysian Examination Council, 2021). The listening input was a 3–5-minute dialogue between a student (Jessica) and a sports lecturer at a university (Dr Halim) discussing exercise benefits. The dialogue included seven multiple choice items with three options each. The task had a complexity level of CEFR B2 (upper intermediate) that was viewed to be suitable as research indicates that tasks which are too easy may not require substantive cognitive processing, much less metacognitive processing (Robinson & Gilabert, 2007; Zheng, 2018). Time was allocated for peer discussion at each stage and listening cycle, consistent with Table 3: pre-listening stage (3-5 minutes), after first listen (10-minutes), after second listen (10 minutes), after third listen (10 minutes), and post-listening (5 minutes). These allocations balanced providing adequate discussion time with maintaining natural pacing.

The pair interaction was recorded using a mobile phone camera video-recording application, positioned at approximately an arm's length to capture utterances while maintaining sufficient distance to minimise obtrusiveness. The instructor-researcher managed the time, instructed for video recording to start, pause, and stop, and controlled the listening audio throughout the listening activity, strictly observing a structured video-recording protocol to ensure a smooth recording process. The recording session lasted about 65 minutes from pre-listening through post-listening stages. Figure 1 shows the research design and data collection flow in this study.

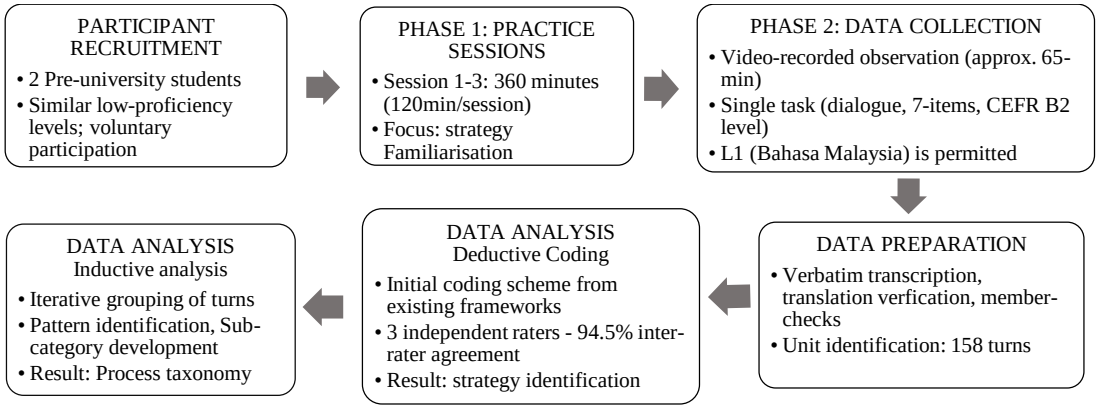

Fig. 1. Research Design and Data Collection Flow

3.4 Data Analysis

Data from the video-recorded observation of the students' verbal protocol were analysed using the qualitative content analysis method, focusing on the deductive-inductive analytical approach. This approach combines both the deductive- and inductive-category development processes in forming categories and coding schemes for data analysis, which aligns with the suggestion by Yeldham (2017) to use existing strategy taxonomy in listening as the basis for coding verbal reports, and adding or discarding any strategies from the taxonomy that are observed or not observed in the data.

3.4.1 Preparing Data for Analysis

The pair verbal interaction was transcribed verbatim, and use of Malay words or non-standard English were translated into standard English, after which the translation was verified by a bilingual and experienced MUET teacher at the research site. The transcribed data were later checked and reviewed by the students

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for accuracy of transcriptions. As the focus of analysis was the verbal interaction between students in pairs, the unit of analysis was the conversation turn of each speaker. Conversation-turn units consist of any verbalisation made during the procedure by any one of the speakers. For coding purposes, each separate, non-continuous comment by a speaker was considered as a conversation-turn unit.

Initial categories, which served as starting points, were formed based on existing theories and frameworks in related literature and assigned to the data, which were then specified, modified, and differentiated as necessary through an iterative and recursive process of moving back and forth between the collected data and existing literature on relevant categories. This approach aligns with the qualitative provisional coding method which "begins with an a priori or "start" list of researcher-generated codes, based on what preparatory investigation suggests might appear in the data before they are collected and analysed" and these provisional codes can be revised, modified, deleted, or expanded to include new codes (Miles et al., 2020, p. 69).

In this study, the deductive category development for conversation turns was guided by existing frameworks in metacognitive strategies and activities by Molenaar's et al. (2014) metacognitive scaffolding-turn coding scheme which covers six categories of interaction – metacognitive, cognitive, relational, procedural, off-task, and not codable. The descriptions of these categories were further guided by Goh's (2010) metacognitive strategies for self-regulation in learner listening, Goh and Vandergrift's (2022) listening strategies taxonomy, Vandergrift's (1997) metacognitive listening strategy taxonomy, and Ucan and Webb's (2015) coding scheme for students' regulation of learning processes. These existing coding frameworks were selected for their relevance in addressing metacognitive activities in small group settings and the subject of listening dealt in this study. Table 4 presents the initial coding scheme used to code conversation turns.

Table 4. Initial Coding Scheme for Conversation Turns

Main Category Code	Code Description
M (Metacognitive interaction)	Turns about monitoring and controlling, and evaluating of cognitive activities during learning[c] such as: Planning Planning of the learning process – a strategy for determining learning objectives and deciding the means by which the objectives can be achieved[a], for instance, sequencing of activities or choice of strategies[c]. Monitoring Monitoring of the learning process – a strategy for checking, verifying, or correcting the understanding of tasks[ae], or progress in the course of learning or carrying-out a learning task[a]. Evaluation Evaluation of the learning process – a strategy for determining the success of the outcome of an attempt to learn or complete a learning task[a], related to reviewing overall learning process and outcomes, usually towards the end of task completion[d].
C (Cognitive interaction)	Turns about the content of the task and the elaboration of this content[c] such as: Reading Out Reading out loud information from the instruction[c], questions, or options. Task-related Processing Cognitive processing of task (e.g. information/factual recall, note-taking, highlighting keywords)[bc] Questioning Asking a question that is related to the content of the task[bc] Elaborating Elaborating and expanding task content[bc] Summarising Summarising what has been said or heard before[c]
R (Relational interaction)	Turns regarding the social interaction between students such as in task division/allocation, engaging a partner in the task, supporting or rejecting an action or idea[c].
P (Procedural interaction)	Turns regarding the procedures to use in the learning environment[c].

OT (Off-Task)	Turns not relevant to task[c]
NC (Not Codable)	Turns too short or unclear to interpret[c]

Source: Adapted from [a]Goh (2010), [b]Goh & Vandergrift (2022), [c]Molenaar et al. (2014), [d]Ucan & Webb (2015), [e]Vandergrift (1997)

3.4.2 Coding of Verbal Protocol

Research question one – *What listening strategies do pre-university learners in pairs employ during paired listening?* – was addressed through the coding of conversation turns with one main category code of interaction based on the initial categories and coding scheme on conversation turns. Turns that were off-task were excluded from subsequent analysis.

Three raters (the first author and two experienced English/MUET instructors) independently coded all 158 conversation turns using the initial coding scheme (Table 4). Initial agreement was reached on 149 turns (94.5%), calculated using Miles and Huberman's (1994) percentage of agreement. This method of calculation was selected as it offers a practical way to assess agreement without imposing overly rigid statistical assumptions in dealing with qualitative data, thus, enabling coders to compare their interpretations directly during the iterative coding process, thereby identifying areas of divergence that warranted further discussion or refinement (Cole, 2024; Miles et al., 2020). It also aligns with the interpretive and iterative nature of deductive-inductive analysis in this study.

Based on the 158 conversation turns, nine disagreements primarily involved identifying overlapping strategy use in single turns (2 instances), distinguishing cognitive task-processing from metacognitive monitoring (6 instances), and differentiating non-lexical vocables from metacognitive verification (1 instance). Disagreements were resolved through structured discussion where each rater articulated their reasoning with reference to coding definitions and transcript context. For example, for turns containing multiple strategies which include both content-based elaboration and metacognitive verification of understanding (e.g. *"We have steps like a person starts with walking, and after walking, he or she can jog when they have the stamina, right?"* – Turn 153 in transcript), the raters agreed to code the dominant strategy based on the utterance's primary communicative function within the conversation flow. In Turn 153, while content-based elaboration supports the cognitive process, the primary function is metacognitive monitoring *("...right?"*), thus it received an 'M' code with notation of verifying understanding following a cognitive strategy. It was also agreed by all raters to code a "C" (cognitive interaction) for utterances that functioned to supplement task-content words in instances where the partner was unable to come up with the intended lexical items (e.g. Student A: *"... because…err…they are ... busy to…doing…"*, Student B: *"assignment?"* – Turn 22-23 in transcript) because these utterances do not involve any checking, verifying or correcting of understanding of tasks. All coding discussions were documented, and final coding decisions were recorded with justifications.

The conversation turns were then segmented into episodes of conversation as performed in earlier research on metacognitive activities and pair interaction (e.g. Haataja et al., 2022; Iiskala et al., 2021; Molenaar et al., 2010, 2014; Storch, 2002; Ucan & Webb, 2015). An episode refers to a turn or a series of turns that shared the same focus, purpose and topic related to the tasks, and a single turn that receives no response at all from the partner is considered as a single episode in itself (Iiskala et al., 2021; Storch, 2002; Ucan & Webb, 2015). A descriptive frequency count was performed on the types of strategies employed per episode in getting a general picture of the most dominant listening strategies used by the pair during peer discussion, consistent with analytical approaches used in previous interaction research in identifying types of language-related episodes and interaction patterns (e.g. Ahmadian & Tajabadi, 2017; Storch & Aldosari, 2012; Watanabe & Swain, 2007). This provided an episode-level overview of strategy deployment patterns during peer discussion.

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Research question two – *What listening processes emerge from the verbal pair interaction between learners during paired listening?* – was addressed through an inductive interpretation of the students' behavioural listening strategies associated with the strategies used in regulating their cognition during peer discussion. Through a recursive iterative process, each unit of the conversation turn was reviewed, and grouped based on the types of strategies as the main listening process, and after which any conceptually similar data were assigned into individual subcategories of the main processes, which reflect a description of the sub-processes in terms of behavioural strategies that constitute the main listening processes or strategies.

3.5 Researcher Positionality and Reflexivity

The instructor-researcher occupied dual roles that required careful navigation. During practice sessions, the instructor-researcher explicitly modelled metacognitive strategies and paired listening procedures, potentially influencing the strategies students later used during observation. To mitigate instructor effects, the instructor-researcher concluded all practice sessions before data collection and observed a structured observation protocol strictly during observation, allowing naturalistic interaction.

During analysis, the instructor-researcher's familiarity with the students and their practice session behaviours may have influenced pattern recognition. For example, knowing that Student A frequently expressed uncertainty during practice sessions, the instructor-researcher may have been sensitised to monitoring strategies involving acknowledging gaps. To address this potential bias, three raters (including two unfamiliar with the students) independently coded the data, and disagreements were resolved through discussion referencing coding frameworks rather than the instructor-researcher's recollections of the students.

Theoretical commitment to sociocultural learning theory also shaped the instructor-researcher's interpretive lens, inclining them toward seeing development through peer interaction. Alternative theoretical frameworks (e.g., information processing theories) might have yielded different interpretations of the same data. Thus, awareness of this theoretical positioning was maintained throughout analysis by regularly reviewing whether interpretations were supported by data or influenced by theoretical expectations.

4.0 FINDINGS & DISCUSSION

4.1 Research Question 1: Listening Strategies Employed by Pre-University ESL Learners during Paired Listening

As data were coded using initial categories and a coding scheme derived from existing theories and frameworks, the classification of data comprised mainly of the metacognitive and cognitive categories. These two broad categories were utilised to capture the use of strategies through verbal utterances between the students, while excluding the affective responses in keeping to the scope of study.

Analysis of 158 conversation turns (excluding 6 off-task turns) revealed that the students employed both metacognitive and cognitive strategies. Table 5 presents the frequency distribution.

Table 5. Frequency Distribution of Listening Strategies

Strategies	Frequency of Occurrences	Total of Occurrences (Percentage)
Metacognitive		
Planning	6	106
Monitoring	98	(70%)
Evaluation	2	
Cognitive		
Reading-out loud	2	

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Task-related processing	25	46
Questioning	2	(30%)
Elaborating	16	
Summarising	1	

Based on Table 5, metacognitive strategies occurred more frequently (106 occurrences, 70%) than cognitive strategies (46 occurrences, 30%). Within metacognitive strategies, monitoring dominated with 98 occurrences (92% of all metacognitive strategies), while planning appeared 6 times (6%) and evaluation occurred 2 times (2%). Among the cognitive strategies, task-related processing occurred most frequently (25 occurrences, 54% of cognitive strategies), followed by elaborating (16 occurrences, 35%), with reading-out loud, questioning, and summarising occurring infrequently (2, 2, and 1 occurrences respectively).

The predominance of metacognitive strategies (70%) over cognitive strategies (30%) suggests that paired listening instruction successfully promoted metacognitive awareness and regulation. This finding aligns with Goh and Vandergrift's (2022) assertion that process-based listening instruction, emphasising metacognitive strategies, helps learners manage comprehension more effectively than product-oriented approaches that focus solely on answer accuracy.

The dominance of monitoring (92% of metacognitive strategies) reflects the while-listening stage's extended duration and multiple listening cycles, which provided frequent opportunities for comprehension checks and verifications. This aligns with previous research demonstrating that peer discussion promotes and facilitates students' monitoring strategies during listening in terms of shared understanding of task, comprehension checks and adjustments, and evaluation of comprehension and performances (Cross, 2009, 2010; Krishnan et al., 2020; Robillos & Bustos, 2022; Sedhu et al., 2017; Shamsi & Bozorgian, 2024; Tanewong, 2019). The social dimension of paired listening may have encouraged students to verbalise strategies they would otherwise apply covertly during individual listening tasks (Cross, 2018; Shamsi & Bozorgian, 2024), suggesting that pair work serves not only as a comprehension scaffold but also as a site of strategy externalisation. Planning strategies, however, appeared primarily during the brief pre-listening stage (3-5 minutes), while evaluation emerged only during post-listening reflection. The distribution may indicate that the immediate demands of comprehension construction during while-listening prioritised monitoring over reflective planning or evaluation, students' developing metacognitive awareness required more practice to engage in sophisticated planning and evaluation, or the time allocations were insufficient for extensive planning and evaluation activities.

4.1.1 Patterns of Strategy Co-Occurrence

Examination of conversation turns within episodes revealed consistent patterns of cognitive and metacognitive strategy co-occurrence. In 16 of 22 episodes containing both strategy types, cognitive strategies of information recall or elaboration preceded or accompanied metacognitive monitoring statements. Table 6 illustrates a representative episode where cognitive information recall ("she said she is a journalist") accompanied metacognitive monitoring activities (weighing alternatives: "but I have two answers"; expressing preference: "I am more inclined to choose A") as uttered by Student A. Likewise, a turn by Student B, indicates the instance of information recall ("she said she is a journalist…"), and followed by a metacognitive monitoring statement in assessing own understanding ("I am confused").

Table 6. Example of Strategy Interplay

Turn	Speaker		Utterances
8	Student A	:	So, for question number 18, “Jessica is a”?
9	Student B	:	What *do* {did} you answer?
10	Student A	:	My answer is C.
11	Student B	:	C? Why?
12	Student A	:	Eh, no, my answer is A.
13	Student B	:	A? Why?

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14	Student A	:	Because I listened to the audio, she said that she is a journalist, but I have two answers, and my second answer is fitness instructor… *but I have to go to my answer is A* {but I am more inclined to choose A as my answer}
15	Student B	:	*You more go to your answer she is a journalist lah?* {You are more inclined to choose the answer that she is a journalist?}
16	Student A	:	Yes, how about you?
17	Student B	:	*Yes, the same I think… because I listened to the speaker, she said she is a journalist but at the last context, she discussed about being a fitness instructor. I got confused.* {Yes, I have the same answer, I think… because as I listened to the speaker, she said she is a journalist, but towards the end, she discussed about being a fitness instructor, so, I am confused}.
18	Student A	:	Yes… me too. I have also heard that in the audio.

Note: Phrases in braces { } are the translation/standard English of the original phrases in italics.

Table 7 shows a second pattern where metacognitive monitoring ("The walking activity for beginners are…correct.") led to comprehension modification. Student A initially selected answer A but modified his answer to C after peer discussion, explicitly acknowledging the modification ("At first my answer was A, but then I changed my answer"), and accompanied by information recall ("…because Dr Halim said, the beginners to doing exercise by walking to protect {them} from injuries") to support comprehension modification.

Table 7. Example of Comprehension Modification

Turn	Speaker		Utterances
93	Student B	:	{Question} 21, "walking is a good exercise for beginners because walking"… I choose C because "it lowers a person's chance of injuries."
94	Student A	:	Oh…
95	Student B	:	The walking activity for beginners are… [12] correct.
96	Student A	:	Okay…
97	Student	:	The beginners don't have enough stamina to do running or jogging because … and I chose C because the beginners *can't* {won't} get serious injuries.
98	Student A	:	Okay…my answer is… [6] also… I choose C.
99	Student A	:	{At} first my answer *is* {was} A, but then I changed my answer, so, I strongly agree with your answer C, "lowers a person's chance of getting serious injuries", because Dr Halim said, the beginners to doing exercise by walking to protect {them} from injuries.

Note: Phrases in braces { } are the translation/standard English of the original phrases in italics.

The consistent pattern whereby cognitive strategies supported metacognitive processes extends O'Malley et al.'s (1987) conceptualisation of strategy relationships. While previous research has established that cognitive and metacognitive strategies co-exist during listening (Noushad, 2008), this study reveals a specific mechanism in paired contexts whereby cognitive strategies become verbalised resources that partners use to scaffold each other's metacognitive regulation. For instance, in Table 6, Student A's cognitive recall ("she said she is a journalist") provided evidential basis for his metacognitive monitoring (weighing two alternatives). When verbalised to his partner, this cognitive information became an external resource that Student B could use to monitor his own comprehension ("Yes, I have the same answer, I think…because as I listened to the speaker, she said she is a journalist but towards the end, she discussed about being a fitness instructor, so, I am confused "). In individual listening context, such cognitive processing would remain internal and unavailable for joint metacognitive work. Hence, this finding suggests that paired listening creates conditions for 'distributed metacognition' where cognitive resources are pooled and made available for joint monitoring and evaluation. This extends individual metacognitive frameworks (Flavell, 1979; Goh, 2010) by showing how metacognitive processes can operate across individuals in collaborative contexts.

From a sociocultural dimension of strategy development, the data provides evidence for Vygotsky's concept of development from inter-mental (between people) to intra-mental (within individual) planes. In instances where a speaker (Student B) acknowledges a comprehension gap (Turn 81-82: "I already got confused with my answer… I don't know…"), elaborated reasoning from Student A provided external

scaffolding in the zone of proximal development (ZPD) (Turn 83-85: "Okay, logically, when you have a healthy body… a healthy body is connected to a healthy mind… When you don't have a healthy body, you don't have the energy, so… lazy to do work"). Student B then appropriated Student A's interpretation (Turn 88: "Right…right") and verified understanding again through reiteration (Turn 90: "A healthy body can lead to a healthy mind?"), which was verified by student A (Turn 91: "Yes, that's right"). This progression from individual inability, through peer-provided reasoning, to appropriated understanding, instantiates Vygotsky's developmental trajectory described by Lantolf et al. (2015).

Critically, however, not all episodes demonstrated such developmental movement. In some instances, both partners remained uncertain without resolution. Consider the episode in Table 6 where both students expressed confusion about conflicting information (Turn 14: "… she said that she is a journalist, but I have two answers, and my second answer is fitness instructor…". While attempts to resolve confusion through information recall were seen, neither partner possessed sufficient confidence to scaffold the other's understanding definitively (Turn 17: "Yes, I have the same answer, I think… because as I listened to the speaker, she said she is a journalist, but towards the end, she discussed about being a fitness instructor, so, I am confused"; Turn 18: "Yes, me too…"). Hence, these findings suggest that paired listening's developmental potential depends on conditional factors, whereby at least one partner possesses adequate comprehension to provide scaffolding, and the willingness to engage in genuine negotiation rather than simply defer to a more confident partner or dismiss the opportunity to negotiate further. This conditional nature of peer scaffolding has important pedagogical implications. Teachers cannot assume that simply pairing students will automatically generate developmental opportunities. Effective paired listening requires careful pairing decisions considering complementary knowledge or skills, explicit instruction in how to support partner's thinking (not just share answers), and development of metacognitive vocabulary for articulating cognitive processes.

4.2 Research Question 2: Taxonomy of Listening Processes

In answer to research question two – *what listening processes emerge from the verbal pair interaction between learners during paired listening instruction?*, inductive analysis of conversation turns revealed specific behavioural strategies constituting broader metacognitive and cognitive processes. As metacognitive and cognitive strategies commonly co-occur within an utterance, multiple specific behavioural strategies were identified within an utterance which demonstrated the processes involved during peer discussion. Table 8 presents a summary of the listening processes identified in paired listening.

Table 8. Summary of Listening Processes Identified in Paired Listening

Main Process	Sub-Processes
Metacognitive	
Planning	Selectively attend to tasks
Monitoring	Initiating checks
	Reiterating to verify
	Judging understanding
	Acknowledging comprehension gaps
	Identifying difficulties
	Initiating comprehension modifications
	Negotiating understanding
	Monitoring task progress
Evaluation	Task Performance
	Strategy use
Cognitive	
Processing	Keywords identification
	Making inferences
	Recalling
	Summarising

Note: 6 turns coded as off-task were excluded

https://doi.org/10.24191/gading. v29i1.767

Eight metacognitive sub-processes were identified within the monitoring category: (1) initiating comprehension checks, (2) reiterating to verify comprehension, (3) judging understanding, (4) acknowledging comprehension gaps, (5) identifying difficulty sources, (6) initiating comprehension modifications, (7) negotiating understanding, and (8) monitoring task progress. Planning involved one sub-process (selective attention to tasks), while evaluation involved two sub-processes (evaluating task performance and strategy use).

Four cognitive sub-processes were identified: (1) focusing on keywords, (2) inferring and elaborating based on background knowledge, (3) recalling information, and (4) summarising text content. Table 9 presents the complete taxonomy with descriptions and examples from the verbal protocols.

Table 9. Taxonomy of Listening Processes and Behavioural Strategies

Processes	Description of Behavioural Strategies	Examples of Utterances
Metacognitive Processes		
Planning		
Selectively direct-attention to tasks	Expresses awareness of what is to be done to accomplish the listening tasks	We have to discuss the… about the answer; We have to compare the answer; We think of {our} strategy first.
Monitoring		
Initiates comprehension checks	Prompts the partner for comprehension checks by asking questions about the text, choice of answer, justification for choices.	For question 21, "Walking is a good exercise for beginners because"… What is your answer?; A? Why {did you choose A?}? {Is that} your *logic* {logical} answer?; So, you answer is?
Reiterates responses to verify comprehension	Repeats the partner's responses to verify his/her own and/or the partner's understanding of text.	So, you are more inclined to choose the answer that she is a "journalist"?; It is fun? Okay, it is fun; So, you choose A *lah*?; So, you choose "a healthy body can lead to a healthy mind *lah*?"; Okay, "dislike working out"? …Hm…(repeating and considering the partner's answer)… for me, the answer here, I choose… I also agree with you.
Makes a judgement of understanding	Makes a judgement and expresses awareness of his/her own or the partner's understanding of text	I already got confused *to* {with} my answer, because from the first listen, I *listened* {heard} the answer is B, but you said it's A; *Yes, the same I think … because I listened to the speaker, she said she is a journalist but at the last context, she discussed about being a fitness instructor. I got confused.* {Yes, I have the same answer, I think… because as I listened to the speaker, she said she is a journalist, but towards the end, she discussed about being a fitness instructor, so, I am confused}.
Acknowledges gaps in comprehension	Expresses awareness that he/she or the pair lacks understanding of text.	Hmm…for me, I don't have the answer but I think the answer is B because "a healthy mind will ensure a physically fit body" because err… [9] what…what…for the…explain the context…; I don't know *lah*, because I just *listened* {heard} that she said that…errrr…[8] I don't know...; The aerobics sessions offered at the college are", my answer is… er... I don't have the answer.
Identifies source of problems/difficulties	Notices the factors affecting comprehension	I don't know... I don't have the answer and I *didn't listen to the* {missed}audio; Maybe… just {that} I didn't really listen to it… about the question. I skipped the question.
Checks and initiates comprehension modifications/ repair	Checks his/her own comprehension against the partner's and the text to facilitate comprehension modification/ repair	{At} first my answer *is* {was} A, but then I changed my answer, so, I strongly agree with your answer C, "lowers a person's chance of getting serious injuries", because Dr Halim

		said, *the beginners to doing* {the beginners} exercise by walking to protect {them} from injuries; Ehh…sorry…sorry… ((noticed Student B's reaction and corrected himself))…My answer is… [8] C, "people who enjoy aqua aerobics in the water" because ermm…in aqua aerobics have a … [7]; Yes, I also agree with you, "lowers a person's chance of injuries by walking"… yeah, I don't {didn't}know, but I listened to what *you said already* {have already said}.
Acknowledges comprehension differences, and negotiates understanding	Recognises different interpretations and negotiates disagreements to achieve shared understanding	Student B: I already got confused *to* {with} my answer, because from the first listen, I *listened* {heard} the answer is B, but you said it's A. I don't know *'coz I also listened through secondly* {because I heard in the second listen}, he said, "a physically fit body leads to a healthy mind"... but I don't know *lah*... I have two [answers], A and B. Student A: Okay, *for a logical* {logically}, when you have a healthy body… a healthy body is connected to a healthy mind…when you don't have a healthy body, you don't have {the} energy, so… Student B: We'll be lazy *lah*? Student A: Lazy to do work. Student B: Right, right. Student B: My answer is C, {which is} different from you, "people who enjoy aerobics in the water", because when we do activities in the water, we can *get* {have} fun, and people can get *injuries* {injured} but *not seriously* {they are not serious} if {they are} doing aqua aerobics…
Monitors task progress	Ensures progress to accomplish tasks	And we can go to question 20, "A healthy body promotes a healthy mind means?"; Okay, let's go to {the} next question
Evaluating		
Evaluates task performance	Assesses performance in tasks	The strategies made us get correct answers, and good scores for these questions.
Evaluates strategy use	Assesses the effectiveness in strategy use	The strategy is good.
Cognitive Processes		
Focuses on keywords	Selects answer from text options based on words or phrases heard in auditory text.	…because {in} the audio she said "journalist"
Infers and relates to general background or previous knowledge	Uses logic to infer from context, and elaborates and relates to existing background knowledge to assist comprehension	…my reason, when we have a physical or fit body {physically fit body}, the mind…directly…the mind…we can have a healthy mind, we can do any activities and think positively…
Recalls information in text	Retrieves content-based information from memory	…because Dr Halim said that the college have {has}…er…students have *a members* {membership}
Summarises text-content	Makes a summary of text	…because I *listened* {heard} Dr Halim said that physically fit body will lead to a healthy mind, and… he said in a different context but for the logical answer is A.

Note: Phrases in braces { } are the translation/standard English of the original phrases in italics.

This taxonomy of listening strategies that resulted from peer collaboration during paired listening serves to support and extend the existing lists based on individual listening tasks. The opportunity to verbalise one's thoughts which translates into strategies deployment during peer collaboration in tackling listening tasks collaboratively has afforded more opportunities for consolidated effort at planning, monitoring and evaluating one's own or the partner's cognitive processes which may not be available during solitary individual cognitive processing during individual-oriented listening (Cross, 2009, 2010, 2018; Goh, 2010, Goh & Vandergrift, 2022; Shamsi & Bozorgian, 2024). For instance, metacognitive strategies of sharing, rechecking, negotiating and reiterating understanding that lead to modifications in task approach and improvements in text-, comprehension- and strategy-use are collaborative features during paired listening

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which may not be employed or activated fully during individual listening. Other cognitive processes that centre on content-related strategies like using keywords, recalling information from audio, relating to background content-knowledge, and summarising text-content are common individual-oriented strategies used during listening which support the use of metacognitive strategies (O'Malley et al., 1987, Noushad, 2008). From a sociocultural learning theory standpoint, this highlights the significance of peer interaction within a social and cultural environment of a classroom setting in promoting scaffolding opportunities and cognitive regulation processes during paired listening.

5.0 CONCLUSION

This pilot study investigated listening strategies and processes during paired listening among Malaysian pre-university ESL learners. Three key findings emerged. First, learners employed metacognitive strategies (70%) more frequently than cognitive strategies (30%), with monitoring dominating metacognitive use. Second, cognitive strategies consistently supported metacognitive processes by providing verbalised evidence for joint comprehension monitoring. Third, paired interactions generated eight distinct metacognitive sub-processes representing varied ways learners collaboratively regulated comprehension through peer scaffolding.

Theoretically, this research demonstrates that listening, traditionally conceptualised as individual-oriented activity, can productively be reconceived as collaborative (Cross, 2009, 2010, 2018). Paired listening creates conditions for 'distributed metacognition' where cognitive resources are pooled, and metacognitive processes operate across individuals rather than within isolated minds. This extends Vygotskyan sociocultural theory's application to listening contexts by specifying mechanisms, such as the verbalised cognitive information as scaffolding resource, through which social interaction promotes metacognitive development.

This study also demonstrates that paired contexts in listening make covert listening processes observable through naturally occurring verbal protocols, unlike think-aloud protocols that may disrupt listening by imposing unnatural verbalisation requirements (Yeldham, 2017). This methodological approach offers advantages for studying listening processes, particularly for less proficient learners who may struggle with simultaneous listening and thinking aloud. Additionally, paired listening provides scalable peer support for instructors facing large mixed-proficiency classes with limited time for individualised support. Rather than the teacher being the sole source of comprehension assistance, students can support each other's meaning construction and understanding during the listening process. This is particularly valuable in large classes where individual teacher-student interaction is constrained.

Additionally, from a pedagogical standpoint, the paired listening approach demonstrated in this study can be adapted for regular classroom practice without extensive additional resources. Short paired discussion episodes may be incorporated following conventional listening tasks, where students verbalise their comprehension strategies and negotiate meaning with a peer before or while comparing answers. Structured listening instruction such as the Metacognitive Pedagogical Sequence (Goh & Vandergrift, 2022) could be adapted for paired formats to scaffold strategy sharing and metacognitive reflection. As such, the paired listening approach offers a practical framework for developing listening pedagogy that moves beyond the listen-and-answer approach, equipping teachers and students with collaborative techniques applicable across proficiency levels.

Finally, this pilot study has several limitations that constrain the interpretation and transferability of findings. First, the small sample size (n=2) with similar low-proficiency pairing formation may have affected the collaborative dynamics during peer discussion. Multiple mixed-proficiency pairs might demonstrate different interaction patterns and yield different strategy profiles (Li et al., 2022; Tanewong, 2019). Thus, the optimal pairing formation likely depends on contextual factors and instructional goals that require systematic investigation. Additionally, a single-task observation following a series of explicit

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instruction provides only a snapshot of strategy use. Strategy deployment with and without training may vary across different contexts, thus, multiple observations would provide a more comprehensive picture of strategy use during paired listening. The allocated time and listening cycles may have also influenced strategy use that different time allocations might yield different strategy profiles. Thus, future research may consider mixed-proficiency pairing configurations during paired listening with a bigger sample size, and utilise a pre- and post- study design that provide comparative data for more varied interpretations and representations of research outcomes. Despite its pilot nature and limitations, this study demonstrates paired listening instruction's potential for developing listening strategies through peer support in Malaysian pre-university ESL contexts. The detailed taxonomy of listening processes and rich conversation examples provide a foundation for future research and practical guidance for teachers.

ACKNOWLEDGEMENTS/FUNDING

The authors would like to extend their sincere gratitude to Kolej PraUniversiti Tingkatan Enam Kota Kinabalu, Sabah and the Academy of Language Studies, Universiti Teknologi MARA (UiTM) Shah Alam for providing the facilities and support for this research.

CONFLICT OF INTEREST STATEMENT

The authors declare that this research was carried out without any personal gain, commercial or financial conflicts. There were also no funders involved in the study design, data collection and analysis, manuscript preparation, or publication decisions.

AUTHORS' CONTRIBUTIONS

All authors contributed substantially to the process of preparing, drafting and submitting the manuscript for publication. Suzie Rahman Wong carried out the research, wrote the introduction, literature review, methodology, findings and conclusion. Mohammad Radzi Manap supervised research progress, anchored the overall review, revisions and approved the article submission. Nur Fazlin Mohd Ramli reviewed the findings, conclusion and overall organisation of the manuscript.

REFERENCES

Aiza Johari, Norseha Unin, & Ch'ng, L. C. (2017). Listen well to score better. *Journal of Creative Practice in Language Teaching (CPLT), 5*(2), pp. 52-64. https://ir.uitm.edu.my/view/journal/cpit.html

Ahmadian, M. & Tajabadi, A. (2017). Patterns of interaction in young EFL learners' pair work: The relationship between pair dynamics and vocabulary acquisition. *3L: The Southeast Asian Journal of English Language Studies*, *22*(3), 98-114. https://doi.org/10.17576/3L-2017-2301-08.

Al-Shammari, H. H. (2020). The impact of strategy Instruction on Iraqi EFL learners listening comprehension and metacognitive strategy use. *MEXTESOL Journal, 44*(4), 1-12. https://www.mextesol.net/journal/public/files/07b5fb26b07e2f69ae3ef84b7f1162a0.pdf

Al-Subaiei, M. S., (2017). Challenges in mixed-ability classes and strategies utilized by ELI teachers to cope with them. *English Language Teaching*, *10*(6), 182-189. https://doi.org/10.5539/elt.v10n6p182

Ardi, H. (2015). Teaching listening through collaborative work: Can we do it? *Proceeding of the Third International Seminar on English Language Teaching (ISELT-3),* 205-210. https://ejournal.unp.ac.id/index.php/selt/article/%20view/6305/

Bloomfield, A., Wayland, S. C., Rhoades, E., Blodgett, A., Linck, J., & Ross, S. (2010). *What makes learning difficult: Factors affecting second language listening comprehension*. Technical Details:

University of Maryland Center for Advanced Study of Language. https://apps.dtic.mil/sti/pdfs/ADA550176.pdf

Bozorgian, H. (2014). The role of metacognition in the development of learners' listening skill. *The International Journal of Listening, 28*, 149-161. https://www.tandfonline.com/doi/abs/10.1080/10904018.2013.861303

Bozorgian, H. & Alamdari, E. F. (2017). Multimedia listening comprehension: Metacognitive instruction or metacognitive instruction through dialogic interaction. *ReCALL, 30*(1), 131-152. Doi: 10.1017/S0958344016000240

Brown, A. (1987). Metacognition, executive control, self-regulation, and other more mysterious mechanisms. In F. E. Weinert, & R. Kluwe (Eds). *Metacognition, Motivation, and Understanding (pp. 65-116*). Hillsdale: L. Erlbaum Associates. https://archive.org/details/metacognitionmot0000unse/page/n9/mode/2up?view=theater

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

Chero, C. A. C. (2023). The impact of metacognitive instruction on EFL low-level learner' listening performance and metacognitive awareness. *International Journal of Instruction, 16*(2), 291-306. https://doi.org/10.29333/iji.2023.16217a

Choo, W. Y., Yee, S. F., & Yeoh, W. T. (2023). *Ace MUET: A Coursebook for the Malaysian University English Test (2nd Ed.).* Shah Alam, Malaysia: Penerbit Ehsan (M) Sdn Bhd.

Cohen, L., Manion, L., & Morrison, K. (2018). *Research Methods in Education* (8th Ed.). New York: Routledge, Taylor & Francis Group.

Coskun, A. (2010). The effects of metacognitive strategy training on listening performance of beginner students. *Novitas-ROYAL, 4*(1), 35-50. https://files.eric.ed.gov/fulltext/ED509339.pdf

Cross, J. (2009). Effects of listening strategy instruction on news videotext comprehension, *Language Teaching Research, 3*(2), 151-176. https://doi.org/10.1177/1362168809103446

Cross, J. (2010). Raising L2 listeners' metacognitive awareness: a sociocultural theory perspective. *Language Awareness*, 19(4), 281-297. DOI: 10.1080/09658416.2010.519033

Cross, J. (2018). Collaborative listening. *The TESOL Encyclopaedia of English Language Teaching* (Edt). John Wiley & Sons, Inc. DOI:10.1002/9781118784235.eelt0598

Dalman, M. & Plonsky, L. (2022). The effectiveness of second-language listening strategy instruction: A meta-analysis. *Language Teaching Research, 00*(0), 1-30. DOI: 10.1177/13621688211072981

Dennistoun, R. (2023, April 11). Policy prism: Untangling classroom overcrowding (part 1). *Harakah Daily*. https://harakahdaily.net/2023/04/policy-prism-untangling-classroom-overcrowding-part-one/

Fahim, M. & Fakhri Alamdari, E. (2014). Exploring the effect of the model of metacognitive instruction on the listening performance of EFL learners. *International Journal of Research Studies in Language Learning (Special Issue), 3*(6), 3-20. DOI: 10.5861/ijrsll.2014.700. https://consortiacademia.org/wp-content/uploads/IJRSLL/IJRSLL_v3i6/700-2799-1-PB.pdf

Fauziana Mohd Sah & Parilah Mohd Shah. (2020). Teachers' beliefs and practices in teaching listening. *Creative Education*, *11*, 182-195. https://doi.org/10.4236/ce.2020.112013

Field, J. (2008). *Listening in the Language Classroom.* Cambridge: Cambridge University Press. https://doi.org/10.1017/CBO9780511575945

Flavell, J. (1979). Metacognition and cognitive monitoring: A new era of cognitive development enquiry. *American Psychologist, 34,* 906-911. https://jwilson.coe.uga.edu/EMAT7050/Students/Wilson/Flavell%20(1979).pdf

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