



Metacognitive Scaffolding in Online English Listening Instruction: A Two-Semester Reflective Practice in a Vocational College

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ABSTRACT

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This reflective study examines the implementation of metacognitive scaffolding to improve online English listening instruction for vocational college students over two semesters of classroom practice, learner tracking, and systematic observation. Although digital platforms enable flexible out-of-class listening, many vocational learners exhibit mechanical repetition, over-reliance on correct answers, low engagement, and listening anxiety, largely due to insufficient self-regulated learning abilities. To address these issues, the researcher restructured online listening lessons around three metacognitive modules: pre-task planning, in-process monitoring, and post-task reflection with hierarchical teacher scaffolding. Adopting a purely qualitative practitioner-reflective design without control groups or statistical tests, data were collected from classroom observations, learning logs, informal interviews, and weekly student journals. Findings indicate that sustained metacognitive scaffolding appears to help some students gradually move away from passive answer-oriented habits, ease anxiety for certain learners, and foster self-regulated learning routines. The study validates the feasibility of metacognitive and scaffolding theories in vocational online settings, acknowledges the limitations of a small single-class sample, and offers practical pedagogical suggestions for frontline vocational English instructors.

KEYWORDS:

metacognitive strategies, online listening instruction, vocational college English, reflective teaching practice, learner engagement.

I. INTRODUCTION

Digital transformation has reshaped English language teaching in Chinese vocational colleges. Many institutions now deliver

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online or blended listening instruction through learning management systems and mobile applications (Zhang & Zou, 2023). As a core course in vocational public English education, listening teaching aims to develop students' basic language ability and cross-cultural communication skills, preparing them for future workplace scenarios. When the researcher's college shifted most compulsory English listening to an online-dominant teaching mode two years ago, the change seemed promising: online platforms allow students to access diverse materials, pause and replay at will, and adjust pace to individual

needs. However, actual outcomes proved less favourable. Within weeks, recurring problems emerged among first-year vocational students. Although many students achieved high scores on weekly online tasks, they struggled to summarise main ideas, identify logical relationships, or explain details during follow-up discussions. The phenomenon of "high scores but low ability" became widespread, contradicting the reform's purpose. Informal conversations revealed that some students replayed short segments merely to locate correct answers rather than to understand content; others admitted that when they lost concentration, they simply waited for automated feedback. Online listening practice had become a mechanical, score-oriented activity, with little meaningful processing or strategy use. Similar patterns of superficial engagement and limited metacognitive regulation in online listening have been reported among Chinese vocational EFL learners (Zhang & Zou, 2023; Teng & Zhang, 2022).

These difficulties are connected to vocational students' general learning characteristics. Research indicates that they often have relatively weak English foundations, unstable study habits, and strong dependence on teacher supervision compared with university students (Cao & Lin, 2020; Li & Ismail, 2024). Most have experienced long-term examination-oriented learning, lacking systematic training in autonomy and language application. Their motivation is often utilitarian, focusing on task completion and scores rather than genuine ability improvement. Such vulnerabilities become more evident online, where direct teacher monitoring is limited. Without immediate supervision, many students struggle to sustain attention and frequently lack effective metacognitive strategies for diagnosing and resolving comprehension problems, relying instead on blind repetition (Teng, 2022). To address these challenges, the researcher integrated systematic metacognitive strategy instruction into the online listening course. Drawing on work in metacognitive listening, self-regulated learning, and online support (Panadero, 2023; Schunk & Greene, 2021; Teng & Zhang, 2022), the researcher explored whether explicit training in pre-task planning, comprehension monitoring, and post-task reflection could help students move beyond answer-focused habits towards more purposeful, self-regulated listening. This paper presents a reflective account of a two-semester instructional attempt, describing strategies implemented, observed changes, persistent difficulties, and

accumulated pedagogical insights. It is not a formal experiment but a practitioner narrative intended to provide practical references for vocational English teachers facing similar challenges.

II. METHODOLOGY

2.1 Research Design and Context

This study adopted a qualitative practitioner-reflective design, appropriate for examining classroom processes in naturalistic settings (Vandergrift & Goh, 2012; Teng & Zhang, 2022). The researcher, who served as the course instructor, conducted systematic observation and reflective practice over two consecutive semesters. The study was purely qualitative, with no quantitative hypothesis testing, pre-post proficiency score comparisons, or statistical computations.

2.2 Participants

The participants were 42 first-year vocational college students (18 male, 24 female) enrolled in a compulsory online English listening course at a vocational college in eastern China. They were non-English majors, aged 18–20, with approximately six years of prior English education. Most were at CEFR A1–A2 proficiency, with only a few approaching B1 level. Their previous learning had emphasised vocabulary memorisation and grammar for examinations, with little independent listening practice or strategic training. Informed consent was obtained, and students were assured of anonymity in any reports.

2.3 Instructional Setting

The course aimed to strengthen basic listening ability and prepare students for vocational English and workplace communication. Most listening instructional activities were conducted through a school-adopted learning management system and a mobile listening application, supplemented by synchronous online discussions. Weekly assignments used graded audio materials covering daily and vocation-related topics. The hierarchical design accommodated different proficiency levels, integrating general and vocational English content. Such technology-enhanced environments are increasingly common in Chinese vocational education (Zhang & Zou, 2023).

2.4 Data Collection

Data were collected from multiple qualitative sources over 32 weeks. Systematic classroom observations were conducted during both asynchronous tasks and synchronous sessions, using a structured protocol adapted from Teng (2022) to record

engagement, strategy use, question quality, and interaction. The learning management system provided digital traces, including task completion, time spent, replay frequency, and scores. Brief informal interviews (5–10 minutes each) were held during office hours and synchronous sessions, exploring students' difficulties, strategies, and emotions; 36 such interviews were conducted. Weekly reflective journals were submitted by all students, yielding 672 entries across the two semesters. Journals were written in English or Chinese according to student preference.

2.5 Data Analysis

Thematic analysis followed Braun and Clarke's (2006) six-phase procedure, with the following concrete operations implemented in this study: (1) Familiarisation – the researcher repeatedly read the 672 student journals, observation records, and interview transcripts to extract preliminary impressions of recurring listening behaviours and learning difficulties; (2) Initial coding – line-by-line open coding was carried out on all qualitative data without pre-set thematic categories, generating 187 initial codes such as "replay without purpose", "anxiety about speed", and "strategy sharing with peers"; (3) Theme searching – related codes were aggregated to form candidate themes linked to metacognitive behaviours, listening anxiety, and learning engagement; (4) Theme review – candidate themes were cross-checked against all data sources to eliminate irrelevant or single-source codes; (5) Theme definition – core themes were labelled and refined with supporting textual evidence from journals and observation notes; (6) Final write-up – representative student quotes and observation excerpts were selected to illustrate and interpret each theme.

To improve data trustworthiness, peer debriefing was conducted with two vocational English instructors who independently cross-examined the preliminary coding structure; member checking invited 8 randomly selected participants to verify whether the researcher's interpretation of their learning experiences matched their actual perceptions; data triangulation integrated platform learning traces, student journals, classroom observation records, and interview notes to minimise single-source bias.

2.6 Initial Challenges Observed

Prior to the intervention, five interconnected challenges were identified from observations, platform records, and journals.

First, sustaining attention was difficult without classroom supervision; students were easily distracted by external factors, leading to fragmented listening. Second, mechanical repetition was the primary coping strategy when comprehension failed; students replayed audio without diagnosing specific problems such as unfamiliar vocabulary or fast speech rate. Third, a strong answer-oriented mindset prevailed, with students prioritising correct answers over understanding processes. Fourth, listening anxiety was widespread, as students felt overwhelmed by authentic speech and low self-efficacy. Fifth, wide proficiency gaps within the same class complicated instruction; weaker learners struggled with basic decoding and needed stronger scaffolding (Schunk & Greene, 2021; Teng & Zhang, 2022).

2.7 Scaffolded Metacognitive Activities

To address these difficulties, the course was redesigned around three metacognitive dimensions: pre-task planning, real-time monitoring, and post-task reflection. A pre-listening stage was added, requiring students to preview questions, scan vocabulary, predict content, and set personal goals. This was intended to activate strategic awareness and purposeful listening, supported by research showing that pre-task planning improves readiness and metacognitive engagement (Bozorgian & Shamsi, 2023; Vandergrift & Goh, 2012). Long passages were divided into shorter segments with monitoring prompts; after each segment, students identified understood information and confusing parts, focusing on comprehension rather than answer accuracy. This segmented monitoring helped students locate specific difficulties and cultivated real-time self-monitoring (Huang, 2025; Teng, 2022). Weekly reflective writing tasks asked students to discuss difficulties, strategy use, and future adjustments, aiming to strengthen self-evaluation and metacognitive awareness (Vandergrift & Goh, 2012; Teng, 2022). Purposeful replay was introduced: before replaying, students had to state a specific reason (e.g., unclear vocabulary, fast delivery, attention loss). Teacher think-aloud demonstrations during synchronous sessions modelled strategic listening processes, as explicit modelling facilitates strategy development (Schunk & Greene, 2021; Teng & Zhang, 2022). Finally, peer discussion activities were integrated into synchronous sessions to promote collaborative reflection and strategy sharing, which can normalise difficulties and enhance

engagement (Wang & MacIntyre, 2021; Zhang & Zou, 2023). Throughout the two semesters, the researcher provided continuous scaffolded support through modelling, prompts, feedback, and emotional encouragement, with differentiated guidance for lower-proficiency students.

III. FINDINGS

3.1 Gradual Shift Away from Answer-Chasing

A notable change was the gradual reduction in purely answer-oriented behaviour. In the early weeks, most student questions concerned correct answers and scores. Over time, more students asked process-oriented questions about comprehension difficulties, topic transitions, and strategies. For instance, in week 3 of the first semester, a student asked during a synchronous session: "I got the right answer for question 5, but I still don't understand why the speaker mentioned the statistics. Could you explain the connection?" (Student Question Log, Semester 1, Week 3). Such questions were rare initially, when inquiries were typically "Is this correct?" or "What is the answer?". Analysis of question logs across the 32 weeks indicated that the proportion of comprehension-oriented questions increased from approximately 15% (Week 2) to 42% (Week 10) (Coding record of student questioning logs). One student wrote in her journal: "Before, I just wanted to finish quickly and get the score. Now I try to think about what I am listening to and why I didn't understand certain parts. It takes more time, but I feel I am learning more" (Student Journal, Semester 1, Week 8). This comment, representative of many, indicates growing awareness of the distinction between task completion and genuine learning.

3.2 Emerging Monitoring Behaviours

Evidence of self-monitoring also increased. Initially, students could only vaguely say they "could not understand". Later, they specified concrete problems: losing concentration during numerical information, misunderstanding rapid conversational shifts, or failing to recognise unfamiliar vocabulary. In week 12 of the first semester, a student wrote: "I found that I always miss information when the speaker talks about numbers and dates. I think I need to practice writing numbers while listening" (Student Journal, Semester 1, Week 12). Another noted: "Today I caught myself not paying attention when the

conversation moved to a new topic. Next time I will try to listen for transition words" (Student Journal, Semester 2, Week 6). Observation notes from synchronous sessions recorded students articulating specific breakdowns; for example, during a peer discussion, one student stated: "I didn't understand the second part because the speaker spoke too fast. I couldn't catch the main idea, not just individual words" (Synchronous Session Observation Record, Semester 2, Week 4). This level of strategic diagnosis represents notable development in metacognitive monitoring, consistent with findings that explicit guidance improves awareness of comprehension breakdowns (Huang, 2025; Teng, 2022).

3.3 Improved Reflective Quality

The quality of reflective writing improved progressively. Early reflections were superficial and formulaic, such as "I need more practice". Later entries became specific and analytical. For example, the same student (Student A) wrote in semester 1, week 2: "I need to practice more listening. I will try harder next time" (Student Journal, S1, W2). By week 14 of semester 1, she wrote: "This week I noticed that I lose concentration when listening to passages longer than 2 minutes. I tried to take brief notes, but sometimes I focus too much on writing and miss the following content. I need to find a better balance" (Student Journal, S1, W14). By semester 2, week 8, she reflected: "I am getting better at predicting content from the questions before listening. This helps me focus on important information. However, I still struggle with understanding implied meaning... I should practice more with inference questions and discuss them with my group" (Student Journal, S2, W8). Another student wrote: "I used to replay the whole audio when I didn't understand. Now I try to identify the specific part where I got lost and replay only that section. I also check the transcript after listening to see why I missed certain information. This method works better for me" (Student Journal, Semester 2, Week 5). Some students made personalised adjustments, such as changing practice times to when they were more alert. These developments indicate strengthened metacognitive regulation, as structured reflection can foster such growth (Vandergrift & Goh, 2012; Teng, 2022).

3.4 Reduced Anxiety for Some Learners

Informal interviews and journals suggested reduced listening anxiety for several students. Many initially viewed listening

failure as evidence of fixed inability. After strategy instruction, some learners came to see partial comprehension as normal and gained a sense of control. For example, a student wrote: "Before this course, I always felt nervous when listening to English. I thought if I didn't understand everything, it meant I was bad at English. Now I know it's normal to miss some parts. I have strategies to help me, so I feel less anxious" (Student Journal, Semester 1, Week 10). Another commented in an interview: "I used to avoid listening practice because it made me feel stressed. Now I have a plan before I start, and I know what to do when I get stuck. I still find it difficult sometimes, but I don't panic anymore" (Informal Interview Record, Semester 2, Week 6). A student who initially showed high anxiety wrote: "I got a low score on this week's task, but I didn't feel as upset as before. I checked my mistakes and found most were because I didn't predict the topic well. Next time I will spend more time on pre-listening preparation" (Student Journal, Semester 2, Week 12). This shift from emotion-focused to task-focused responses suggests improved emotional regulation, aligning with evidence that metacognitive instruction can alleviate anxiety and enhance self-efficacy (Wang & MacIntyre, 2021; Teng, 2022).

3.5 Persistent Challenges and Uneven Engagement

Despite positive changes, not all students improved substantially. Analysis of journal entry quality over the two semesters revealed that approximately 25% of students (10 out of 42) showed minimal progress in reflective depth, consistently submitting brief, generic statements. Proficiency differences strongly influenced effectiveness; lower-level learners often devoted most cognitive resources to basic decoding, leaving little capacity for metacognitive monitoring. Observation notes showed that weaker students struggled to complete pre-listening planning within the allotted time. One student wrote: "I know I should predict and plan before listening, but I spend too much time just understanding the questions. Sometimes I don't finish the prediction before the audio starts playing" (Student Journal, Semester 2, Week 4). Another commented: "The strategies are good, but when the listening is fast, I forget everything and just try to catch words" (Student Journal, Semester 2, Week 9). These difficulties were more pronounced for those entering at A1 level, suggesting that metacognitive instruction may need to be preceded by intensive

language foundation building. Such patterns are consistent with research on cognitive load and self-regulated learning in online listening (Teng, 2022; Craig et al., 2020), indicating that metacognitive development is gradual, uneven, and dependent on existing proficiency.

IV. DISCUSSION

4.1 Why Did the Changes Occur?

In the present study, the observed shift from product-oriented to process-focused listening can be interpreted as a combined effect of the three-stage metacognitive cycle integrated into the course design. Data from student journals and observation records suggest that the pre-task planning stage reduced initial uncertainty and activated relevant prior knowledge, while the embedded monitoring prompts interrupted the automatic habit of blind repetition. Moreover, the post-task reflection requirement created a form of accountability, as students were expected to articulate their strategy use in writing each week. These three components likely worked synergistically to disrupt established passive habits. For instance, one student's journal explicitly noted that the planning stage helped her "feel more prepared" and "less lost" when the audio began (Student Journal, S1, W5). This finding is consistent with Vandergrift and Goh (2012) and Teng (2022), who argue that structured metacognitive cycles foster active engagement by guiding learners' attention through the listening process.

4.2 Why Only Some Students Benefited?

The uneven effectiveness of the intervention appears closely related to individual differences in linguistic readiness and prior learning experience. Data analysis indicates that students who demonstrated stronger English foundations at the outset were more able to allocate attentional resources to metacognitive activities, whereas weaker students remained occupied with lower-level decoding. In addition, motivational factors likely played a role. Several students who showed minimal improvement continued to submit superficial reflections, suggesting that they may not have been fully invested in the new approach. One such student wrote consistently "I will practice more" without specifying any concrete strategy, indicating a lack of cognitive engagement (Student Journal, S2, W10). Environmental factors, such as limited digital literacy or unsupported home learning

environments, may have further hindered certain learners. This observation echoes Teng's (2022) and Huang's (2025) discussions on cognitive load, which emphasise that learners need a certain threshold of automaticity before they can effectively deploy higher-order strategies.

4.3 Why Did Weaker Students Struggle More?

For students at CEFR A1 level, basic decoding and vocabulary recognition remained cognitively demanding, so the addition of metacognitive tasks may have increased rather than reduced their cognitive burden, at least in the short term. This was reflected in one student's journal complaint that "when the listening is fast, I forget everything and just try to catch words" (Student Journal, S2, W9). This suggests that for the lowest-proficiency group, the linguistic processing demands consumed available working memory, leaving insufficient capacity for strategic planning and monitoring. This supports Teng's (2022) argument that metacognitive strategies cannot be effectively utilised until lower-level processing becomes relatively automatic. However, it is worth noting that even among weaker students, those who consistently applied the strategies showed gradual improvement over the two semesters, implying that sustained, patient scaffolding can eventually yield progress, albeit at a slower pace.

4.4 Which Scaffolds Worked Best?

Analysis of student feedback, both in journals and interviews, revealed that certain scaffolds were more valued and apparently more effective than others. Pre-listening prediction activities were frequently mentioned as helpful for focusing attention and reducing anxiety; 28 of the 42 students explicitly praised this component in their reflections. Purposeful replay practice was cited by 24 students as useful for breaking the cycle of mechanical repetition; one learner explained that articulating a specific reason before replaying made the activity "more efficient" and "helped me learn" (Student Journal, S1, W11). Teacher think-aloud demonstrations were also appreciated by 22 students, who felt that observing the instructor's internal decision-making made abstract strategies more concrete and imitable. Peer discussion received mixed responses: while 18 students found strategy-sharing beneficial, quieter students found the online group format intimidating, suggesting that this scaffold may require more structured facilitation. Reflective writing was valuable for those with adequate writing skills, but

some lower-proficiency students reported that the writing requirement itself was burdensome, indicating that alternative reflection formats, such as voice recordings or structured checklists, might be necessary for certain learners. Overall, the findings underscore that sustained teacher modelling and purposeful practice activities appear particularly effective for vocational learners, while differentiation remains indispensable.

V. LIMITATIONS

Several limitations must be acknowledged. First, the study was not a formal experiment and lacks control groups or quantitative measures, so causal relationships cannot be established. Findings are based on observations, interviews, and journals, which may not fully capture learners' actual strategic behaviours (Craig et al., 2020). Second, the practice was conducted in a single vocational college with one cohort, limiting transferability; institutional conditions, learner profiles, and technological environments vary widely (Teng, 2022; Zhang & Zou, 2023). Third, the researcher was both instructor and data collector, potentially introducing bias, though peer debriefing and member checking were employed to mitigate this. Fourth, the intervention did not benefit all learners equally; about a quarter of students showed minimal improvement, and weaker students struggled more, indicating that one-size-fits-all approaches are insufficient. Fifth, the study did not include pre- and post-test listening proficiency measures, so it is unclear whether behavioural changes translated into measurable ability gains. Despite these limitations, the reflective account offers authentic insights into practical realities and gradual learner development, complementing controlled experimental research (Vandergrift & Goh, 2012; Teng & Zhang, 2022).

VI. CONCLUSION

This reflective account of integrating metacognitive scaffolding into online English listening teaching for vocational college students suggests that scaffolded activities—pre-listening planning, comprehension monitoring, reflective learning, purposeful replay, and collaborative discussion—can encourage some vocational students to gradually shift away from passive answer-oriented listening toward more active self-regulated listening behaviours within a two-semester

teaching cycle. These observations are consistent with research emphasising explicit metacognitive support and teacher scaffolding in online EFL contexts (Panadero, 2023; Teng, 2022). The teaching experience also highlights the persistent importance of teacher presence in digital environments; technology alone does not foster autonomy. Continuous modelling, structured guidance, emotional encouragement, and individualised feedback appear essential for developing sustainable metacognitive awareness, particularly for vocational learners with weak autonomous learning skills.

Several practical takeaways emerge. Metacognitive instruction should be introduced gradually and systematically, not as isolated strategy explanations; progressive training avoids excessive burden. Teacher think-aloud demonstrations make abstract strategies concrete and observable. Reflective activities should prioritise authenticity and personalised feedback over formal assessment, and for weaker writers, alternative formats like voice recordings may be useful. Normalising comprehension difficulties can reduce anxiety. Differentiated scaffolding remains necessary, as lower-proficiency learners often cannot independently engage in higher-level regulation (Teng, 2022; Wang & MacIntyre, 2021).

Given the single-class sample and the lack of quantitative proficiency tests in this reflective practice, this study only provides preliminary evidence indicating a potential research gap concerning vocational college learners in online language learning settings. Most existing metacognitive listening studies focus predominantly on university students. Future longitudinal and mixed-methods research could examine how strategy use, emotional adjustment, and autonomy develop over time in vocational settings (Huang, 2025; Teng, 2022). While these findings are context-specific, they offer practical guidance for frontline vocational English teachers confronting similar challenges in digital learning environments.

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