From Metacognitive Awareness to Self-Directed Learning: Insights from Non-English Majors

Yesi[1]✉, Mardiah[2]
(1) Pendidikan Bahasa Inggris, Universitas La Tansa Mashiro, Indonesia
(2) Manajemen, Universitas Primagraha, Indonesia

✉ Corresponding author
[yesi@unilam.ac.id]

Abstract

This study explores the role of metacognitive awareness in self-directed English learning among non-English major students. Using a qualitative descriptive design and thematic analysis, four themes were identified in relation to Flavell's (1979) metacognitive components. Learning Strategies reflected metacognitive knowledge and strategies through planning and applying techniques such as summarizing and scheduling. Skill Influence corresponded to metacognitive experience, as students assessed their strengths and weaknesses, particularly in listening and speaking. Support Mechanisms emphasized external strategies, including peer assistance, online forums, and media resources. Progress Evaluation related to metacognitive monitoring, highlighting reflection and assessment of outcomes. The findings demonstrate how awareness, strategies, and reflection collectively foster learner autonomy. The study contributes theoretically to Flavell's model and practically emphasizes structured metacognitive training to enhance English proficiency.

Keywords: *Metacognitive Awareness*, *Self-Directed Learning*, *Non-English Majors*, *English Language Learning*, *Qualitative Research*

Abstrak

Penelitian ini mengeksplorasi peran kesadaran metakognitif dalam pembelajaran mandiri Bahasa Inggris mahasiswa non-English major. Dengan desain kualitatif deskriptif dan analisis tematik, ditemukan empat tema utama yang terkait dengan komponen metakognitif Flavell (1979). Learning Strategies menunjukkan pengetahuan dan strategi metakognitif melalui perencanaan dan penggunaan teknik seperti ringkasan dan jadwal belajar. Skill Influence mencerminkan pengalaman metakognitif, ketika mahasiswa menilai kekuatan dan kelemahan diri, khususnya pada keterampilan menyimak dan berbicara. Support Mechanisms menekankan strategi eksternal, termasuk dukungan teman sebaya, forum daring, dan sumber media. Progress Evaluation berkaitan dengan pemantauan metakognitif melalui refleksi dan penilaian hasil belajar. Temuan ini menegaskan bahwa kesadaran, strategi, dan refleksi metakognitif saling mendukung kemandirian belajar. Penelitian ini berkontribusi secara teoretis pada model Flavell dan secara praktis menekankan pentingnya pelatihan strategi metakognitif.

Kata Kunci: *Kesadaran Metakognitif*, *Belajar Mandiri*, *Mahasiswa Non-English Major*, *Pembelajaran Bahasa Inggris*, *Penelitian Kualitatif*

INTRODUCTION

In an increasingly globalized academic environment, English proficiency has become a critical skill across all disciplines, including for students from non-English majors. English functions as a lingua franca in academic and professional communication worldwide (Do & Phan, 2021). However, many students from non-English disciplines still exhibit limited English proficiency and a lack of motivation to engage in in-depth, autonomous learning. Although English is generally taught across faculties, many non-English major students regard it as a supplementary subject rather than a core necessity, which results in low learning engagement and suboptimal learning strategies (Lai, 2009; Li, 2013).

Previous research on language learning strategies has highlighted the importance of autonomous learning and learning awareness. One of the essential aspects in this regard is metacognition, defined as the individual's awareness and regulation of their own thinking and learning processes (Flavell, 1979; Efklides, 2008; Haukås et al., 2018). The context of second or foreign language acquisition, metacognition has proven to be instrumental in improving learning outcomes and fostering reflective learning habits (Carrell, 1989; Chamot, 2005; Raoofi et al., 2013). Metacognitive strategies such as planning, monitoring, and evaluation enable learners to manage their learning process actively and effectively (Hartman, 2001; Wenden, 2014) and their use correlates positively with enhanced listening and reading skills in English (Li, 2013; Do & Phan, 2021).

Nonetheless, most existing studies have focused on English majors or advanced learners, leaving the needs and contexts of non-English major students relatively unexplored (O'malley et al., 1987; Li, 2013). Moreover, existing strategy training approaches tend to be generic, lacking a specific emphasis on developing metacognitive components (Chamot, 2005; Zhao & Liao, 2021). Previous research has shown that training in metacognitive strategies can enhance performance in English reading and writing tasks (Hartman, 2001).

However, few studies have specifically examined how non-English major students apply such strategies in their self-directed learning contexts. As Hartman (2001) noted, many learners possess untapped metacognitive potential due to a lack of awareness of strategies suited to their learning needs and contexts. Li (2013) also found significant differences in metacognitive awareness between students with strong listening skills and those with weaker skills, particularly among non-English majors. To address this gap, this study aims to investigate the self-directed learning strategies used by non-English major students in English learning, with an emphasis on the role of metacognitive awareness. The study seeks to understand how students plan, monitor, and evaluate their learning processes independently. The objective of this study is to identify the self-directed learning strategies employed by non-English major students, with a particular focus on the role of metacognitive awareness in English language learning.

METHOD

This study employed a descriptive qualitative approach using thematic analysis based on the model proposed by Miles et al. (2014). This approach was selected to explore in-depth the learning experiences and metacognitive strategies used by non-English major students in English learning. Thematic analysis allowed the researchers to identify meaningful patterns (themes) from qualitative data derived from participant experiences. To provide a clearer overview, the research procedure using thematic analysis followed six stages, as a figure below

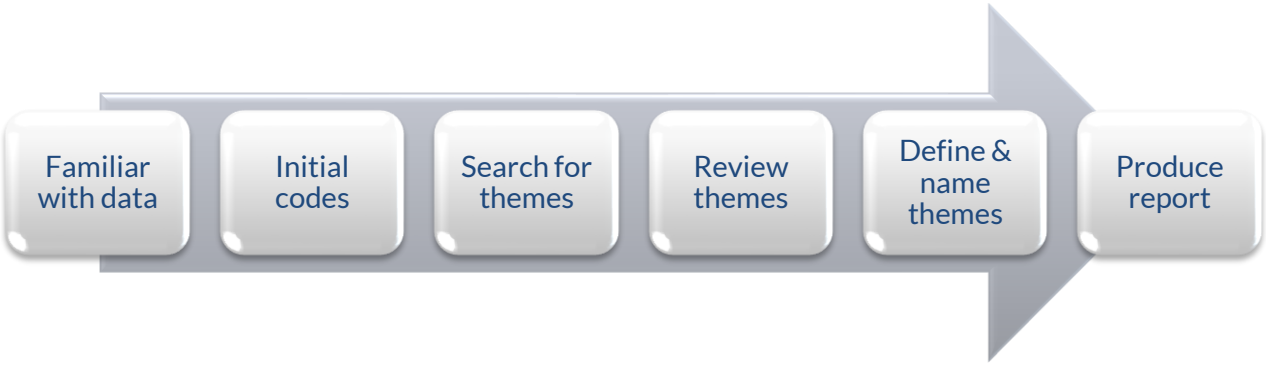

Figure 1. Phases of Thematic Analysis

The participants of this study comprised 17 undergraduate non-English major students at a university in Indonesia who were enrolled in a general English course. Participants were selected through purposive sampling based on specific characteristics relevant to the research objectives, enabling the collection of rich and meaningful data (Nyimbili & Nyimbili, 2024). The selection criteria included: Not enrolled in an English language major, completed at least one semester of English coursework, Willing to be interviewed, and actively participate in data collection.

To ensure systematic and transparent data collection, the procedures employed in this study are summarized in the following table. Table 1 outlines the techniques used, their practical implementation, and the types of outputs generated for subsequent analysis. All data were recorded and transcribed for further analysis using the thematic approach.

Table 1. Data Collection Procedures

Technique	Implementation	Output for Analysis
Semi-structured Interviews (Cohen et al., 2008)	Conducted individually with selected non-English major students; each session lasted 30–45 minutes; audio-recorded with consent and later transcribed verbatim.	Verbatim transcripts capturing narratives on learning strategies and metacognitive awareness.
Indirect Observation (Miles et al., 2014)	Drawn from students' descriptions of their learning activities during interviews; researcher took notes to document patterns and cross-check responses.	Observational notes complementing interview data as triangulation.

Data analysis followed Miles, Huberman and Saldana's model, which includes three main stages: 1) Data Condensation; This stage involved filtering, organizing, and simplifying raw data into essential components related to the study's focus—metacognitive strategies such as planning, monitoring, and evaluation in English learning. 2) Data Display; Condensed data were presented in tables, matrices, and thematic narratives to facilitate the identification of patterns and strategic relationships. 3) Drawing and Verifying Conclusion; Researchers drew conclusions from identified patterns and verified findings by cross-checking data and conducting member checks to ensure validity and credibility.

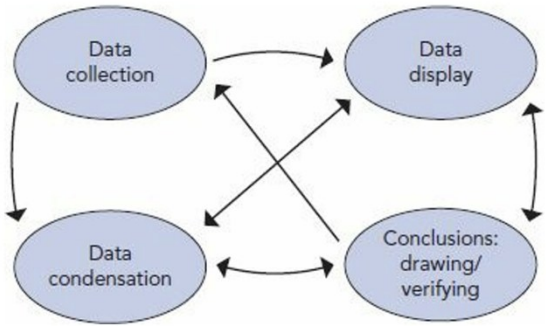

Figure 2. Components of Data Analysis: Interactive Model adapted from Miles et al. (2014)

To ensure the credibility of the findings, two strategies were applied: triangulation and member checking. Triangulation was carried out by systematically comparing students' narratives from semi-structured interviews with data obtained from indirect observation notes. For example, when students reported the use of digital tools or peer discussions as part of their learning strategies, the researcher verified these accounts against the consistency of their reported activities across different interview sessions. Member checking was conducted by sharing the summarized interpretations of each theme with the participants, either at the end of the interview or in follow-up communication, to confirm accuracy and allow participants to clarify or refine the researchers' understanding.

RESULT AND DISCUSSION

Main Findings

Through in-depth interviews with non-English major students, four key themes emerged using Miles, Huberman and Saldana's thematic analysis technique. These themes represent the metacognitive aspects involved in English language learning: (1) Learning Strategies, (2) Skill Influence, (3) Support Mechanisms, and (4) Progress Evaluation. Each theme corresponds with Flavell (1979) components of metacognition: metacognitive knowledge, metacognitive experiences, goals, and strategies.

Learning Strategies

Most students demonstrated awareness in selecting and applying specific learning strategies. These included the use of English learning applications, creating study summaries, using flashcards for vocabulary, and scheduling independent study sessions - activities reflecting planning and monitoring as metacognitive strategies.

> *"I use media such as YouTube, English learning apps, or books, and I also try to communicate with my friend who can speak English to boost my confidence, even if I'm nervous." (R1)*
> *"I usually listen to English songs or podcasts." (R3)*

These findings suggest that students possess the ability to set learning goals and develop strategies that align with their personal needs and characteristics. This aligns with the concept of *metacognitive knowledge* (knowledge about self and strategies) as proposed by Flavell (1979). However, while students engage in active self-regulation, some demonstrate inconsistency in implementation.

Comparable results were reported by Teng et al. (2023), who found that learners with stronger metacognitive strategies were more effective in planning and self-monitoring their English learning progress during online learning contexts. Similarly, Bai. Barii & Wang (2020) in a mobile-assisted setting highlighted that students benefited from digital tools and strategy awareness to enhance listening skills, reinforcing the role of metacognitive planning in sustaining motivation. In the Malaysian context, Kaur (2020) also observed that students showed commendable declarative and procedural metacognitive knowledge in vocabulary learning, although conditional knowledge (when and why to apply strategies) remained limited

This limitation resonates with the inconsistency found in our study, where students sometimes failed to maintain structured implementation of strategies. At the international level, R1 (2021) and R2 (2022) both underline that while learners increasingly use strategies such as online resources and peer collaboration, the depth of reflection and systematic monitoring varies, affecting the overall effectiveness of self-directed learning.

Taken together, these comparisons indicate that while our participants demonstrate emerging autonomy in selecting and applying strategies, challenges in sustaining consistent and structured use are not unique to this context but reflect a broader pattern observed across EFL settings.

Skill Influence

Students recognized that limitations in particular skills influenced their choice of learning methods. Many cited weaknesses that shaped their strategies for instance, choosing reading over speaking due to anxiety, or watching English-language films to improve listening skills.

> *"At my previous school, some students were good because they often communicated in English, but I struggled and was afraid of making pronunciation mistakes since I rarely practiced." (R6)*
> *"I usually watch English movies." (R7)*

This indicates self-evaluation (*self-assessment*), a component of *metacognitive experiences*. Students acknowledge their strengths and weaknesses and attempt to adapt their strategies accordingly. However, many have not yet used this awareness to formulate long-term learning plans, underscoring the need for further metacognitive training.

These findings are consistent with Mohseni et al. (2020), who found that Iranian EFL learners with higher metacognitive awareness adjusted their strategies when facing challenges in specific skills, particularly in listening comprehension. Similarly, Teng et al. (2023) reported that metacognitive strategies significantly influenced learners' English achievement, as students who monitored their weaknesses in speaking or writing were more likely to make adaptive changes. In a mobile-assisted context, Peng et al. (2024) highlighted that Chinese EFL learners improved listening through targeted self-regulation strategies such as repeated exposure to digital input, echoing our respondents' reliance on movies and podcasts.

At the national level, Santi et al. (2024) observed that Indonesian students often avoided speaking tasks due to anxiety about pronunciation, preferring passive skills such as reading and listening, which mirrors the avoidance behaviors found in this study. This also aligns with (Zhang & Lau, 2024), who emphasized that learner interest and self-evaluation interact with contextual factors such as home environment and peer support in shaping language development.

These comparisons show that while students in different contexts recognize their skill limitations and attempt adaptive strategies, sustained metacognitive training is crucial to transform short-term adjustments into long-term, structured learning plans.

Support Mechanisms

Social, technological, and environmental support were found to be crucial in students' learning processes. They actively sought help from peers, used learning forums, and engaged in group study.

> *"When there's grammar I don't understand, I usually ask a friend who knows more." (R4)*
> *"Sometimes I join Telegram forums to ask questions about TOEFL." (R7)*
> *"I look for several sources, such as educational videos on learning English or video explanations of material I don't understand." (R13)*

These support mechanisms represent external metacognitive strategies where students recognize their limitations and actively seek external solutions. In Flavell's model, this falls under *strategies* used to achieve cognitive goals. This also reflects *interpersonal metacognitive awareness*, which is often overlooked in conventional learning designs.

The findings resonate with Karatas & Arpaci 2021), who emphasized that peer collaboration and digital platforms foster mutual scaffolding and create a sense of shared responsibility in metacognitive strategy development. Similarly, Teng et al. (2023) reported that students with access to online communities demonstrated higher self-efficacy and persistence in language learning, underscoring the motivational role of social and technological support. On a broader scale, Kumar (2025) highlighted that language support mechanisms such as bilingual peers or community-based forums significantly reduce the negative effects of linguistic barriers in education, particularly among marginalized students

Conversely, Yang (2023) cautioned that while digital tools and peer networks provide flexibility, they may also overwhelm learners without structured guidance, leading to fragmented strategy use. This concern parallels the inconsistency found among participants in this study, some of whom relied on multiple sources without a clear framework for integration.

Collectively, these comparisons indicate that support mechanisms, both social and technological, are indispensable yet require structured integration into pedagogy. Designing English learning that deliberately incorporates peer mentoring, online communities, and curated digital resources can optimize their positive impact while minimizing the risk of unstructured overreliance.

Progress Evaluation

Students described various ways to assess their learning progress, including tracking quiz scores, comparing past results, and engaging in personal reflection.

> *"When I can answer practice questions correctly, that means I've understood the material." (R13)*
> *"If I truly understand the previous material, then my evaluation is considered very good." (R16)*

These activities indicate self-evaluation as a key component of the metacognitive process. In Flavell's theory, evaluation reflects the interaction between metacognitive experiences and control strategies. The findings show that some students have implemented active self-monitoring and self-reflection - an indicator of their readiness for independent learning.

Comparable results were reported by Teng et al. (2023), who found that self-monitoring and evaluative reflection strongly predicted English achievement, as students who regularly assessed their progress were more capable of adjusting strategies effectively. Similarly, Mohseni et al., 2020)

highlighted that Iranian EFL learners who practiced continuous self-assessment demonstrated greater autonomy and improved skill integration, particularly in listening and speaking.

In the Indonesian context, Albalawi, 2024) observed that while students engaged in informal evaluations such as comparing test results, they often lacked systematic reflection, limiting the long-term benefits of self-regulated learning. This resonates with our finding that evaluation was present but not always structured. Elizondo et al. (2024)) also emphasized the role of digital feedback tools, such as mobile learning apps, which enhanced learners' ability to monitor progress in listening tasks. At a broader level, Yang 2023) cautioned that learners need guided frameworks for reflection, as excessive reliance on fragmented self-assessment without structured feedback can create a false sense of progress. This observation parallels the inconsistent self-monitoring among some participants in this study.

These comparisons suggest that while students in diverse EFL contexts recognize the importance of progress evaluation, consistent and structured self-reflection supported by guided feedback is essential to transform evaluative practices into sustainable independent learning.

Table 2. Summary of Findings

Theme	Metacognitive Component (Flavell, 1979)	Key Indication
Learning Strategies	Metacognitive Knowledge, Strategies	Awareness of strategy use and planning
Skill Influence	Metacognitive Experience	Evaluation of personal strengths/weaknesses
Support Mechanisms	Strategies (External)	Utilization of resources and social support
Progress Evaluation	Metacognitive Experience, Monitoring	Reflection and evaluation of learning outcomes

The table above summarizes the main findings of the study by linking the four identified themes - Learning Strategies, Skill Influence, Support Mechanisms, and Progress Evaluation to Flavell (1979) metacognitive components and their corresponding key indications. *Learning Strategies* reflects the components of metacognitive knowledge and strategies, emphasizing students' awareness of the strategies they employ and their ability to plan learning activities intentionally, such as using digital tools, summarizing materials, or organizing study schedules. *Skill Influence* corresponds to metacognitive experience, in which students evaluate their personal strengths and weaknesses such as listening or speaking proficiency and adjust their learning approaches based on this self-assessment. *Support Mechanisms* is associated with external strategies, representing students' active use of resources and social support systems, including seeking help from peers, joining online forums, and utilizing various media to enhance learning. Finally, *Progress Evaluation* relates to metacognitive experience and monitoring, capturing students' reflective practices and their evaluation of learning outcomes, such as tracking quiz scores or assessing task performance to inform future strategy adjustments. Collectively, these themes illustrate how the elements of Flavell's metacognitive model are manifested in the self-directed English language learning of non-English major students, highlighting the interconnected roles of awareness, strategy application, and reflection in fostering autonomous learning.

Discussion

This study aimed to explore how non-English major students employ self-directed learning strategies in English learning, with a focus on metacognitive awareness. Thematic analysis of the interview data revealed that students are actively engaged in managing and monitoring their own learning, albeit with varying degrees of quality and consistency. These findings reinforce the critical role of metacognition in enabling learners to direct their learning efforts independently,

systematically, and reflectively - particularly in contexts where learners may initially have lower motivation.

The study directly addresses the research question: how do non-English major students employ metacognitively based self-directed learning strategies in English learning? Their learning processes demonstrate not only the use of cognitive strategies but also the regulation and evaluation of these strategies, which lie at the heart of metacognition Flavell (1979). Activities such as goal setting, identifying weaknesses, seeking support, and evaluating outcomes reflect active engagement with *metacognitive knowledge*, *metacognitive experiences*, and *strategy use*.

These findings align with Flavell (1979) framework, which posits that metacognition involves both knowledge of cognitive processes and the ability to monitor and regulate them. Students exhibited *metacognitive knowledge* when they recognized their linguistic weaknesses and chose appropriate strategies. They also experienced *metacognitive experiences* by consciously recognizing the effectiveness or ineffectiveness of certain strategies, leading to behavioral adjustments.

Activities such as self-reflection and strategy adjustment also indicate students' engagement in the *evaluation* phase of the learning process - an essential component of *self-regulated learning*. This suggests that students are not passive users of strategies, but actively organize and assess their effectiveness.

However, it is important to note that these abilities are not yet fully structured or optimized. Most strategies employed are still practical and not entirely based on deep reflection or theoretical understanding. This may be due to the lack of explicit metacognitive strategy training in general English curricula.

These findings are consistent with previous research that highlights the significant contribution of metacognition to success in second/foreign language learning (Chamot, 2005; Raoofi et al., 2013; Zhao & Liao, 2021) also emphasized that metacognitive strategies like planning and evaluation positively affect performance in English writing assessments. Likewise, Karpicke et al. (2009) demonstrated that metacognitive-based retrieval practice is more effective than mere rereading yet this strategy was rarely used by students in this study, indicating a gap between metacognitive potential and application.

Furthermore, some differences were noted in comparison with studies involving English major students, who generally exhibit higher metacognitive awareness and employ more complex strategies (Wenden, 2014). In this study, strategies used by non-English major students were simpler and more context-dependent, often driven by short-term academic demands (e.g., exams, assignments, presentations).

Theoretical And Practical Implications

Theoretically, the findings broaden our understanding that metacognitive processes are not exclusive to learners with strong academic orientations, but also naturally emerge among general learners (non-English majors), even if still in rudimentary or unstructured forms. Practically, the results highlight the importance of integrating metacognitive strategy training in English instruction even in general courses to better equip students with the skills to consciously design and evaluate their learning strategies.

CONCLUSION

This study shows that non-English major students apply a range of self-directed learning strategies that reflect metacognitive awareness, particularly in planning, monitoring, and evaluation. Thematic findings highlight four dimensions—learning strategies, skill influence, support mechanisms, and progress evaluation—which together demonstrate students' emerging ability to regulate their learning, even though their practices remain inconsistent and often lack long-term structure.

The main findings, when linked to Flavell's (1979) metacognitive model, provide further insight into how metacognition operates in English learning. Learning Strategies correspond to metacognitive knowledge and strategies, emphasizing students' awareness of their choices and ability to plan learning activities, such as using digital tools, summarizing materials, or organizing study schedules. Skill Influence reflects metacognitive experience, as students evaluate strengths and weaknesses (e.g., listening or speaking proficiency) and adjust strategies accordingly. Support Mechanisms align with

external strategies, evident in students' reliance on peers, online forums, and media resources to overcome difficulties. Progress Evaluation relates to metacognitive experience and monitoring, captured in reflective practices such as tracking quiz scores or evaluating task performance to guide future adjustments. Collectively, these findings illustrate how awareness, strategy application, and reflection are interconnected in fostering autonomous learning.

The contribution of this study lies in clarifying how non-English major students manifest Flavell's metacognitive components in self-directed English learning, thereby extending prior research in EFL contexts. Practically, the results emphasize the need for explicit training in metacognitive strategies—including structured reflection, strategy instruction, and guided self-assessment—to ensure consistency and sustainability. Future research may broaden this work by involving larger samples or combining qualitative and quantitative approaches further to examine the relationship between metacognitive awareness and language achievement.

.

ACKNOWLEDGEMENTS

The researcher extends sincere gratitude to all parties who provided support during the execution of this study. Special appreciation is given to the participating students who generously shared their experiences through interviews. The researcher also thanks the university administration for granting permission and providing the necessary facilities for data collection. It is hoped that this work contributes meaningfully to the development of metacognition-based English language learning.

REFERENCES

Albalawi, A. (2024). The Role of Individual Differences in L2 Vocabulary Learning: A Review of Out-of-Class Exposure, Strategic Learning and Motivation. *Australian Journal of Applied Linguistics*, *7*(2). https://doi.org/10.29140/ajal.v7n3.1641

Bai. Barii, & Wang, J. (2020). *The Role of Growth mindset, self-Efficacy and Intrinsic Value in Self-Regulated Learning and English*. 1–22.

Carrell, P. L. (1989). Metacognitive Awareness and Second Language Reading. *The Modern Language Journal*, *73*(2), 121–134. https://doi.org/10.1111/j.1540-4781.1989.tb02534.x

Chamot, A. U. (2005). Language learning strategy instruction: Current issues and research. *Annual Review of Applied Linguistics*, *25*, 112–130. https://doi.org/10.1017/S0267190505000061

Cohen, Louis., Manion, Lawrence., & Morrison, Keith. (2008). *Research Methods in Education* (6th ed.). Routledge.

Do, H. M., & Phan, H. L. T. (2021). Metacognitive Awareness of Reading Strategies on Second Language Vietnamese Undergraduates. *Arab World English Journal*, *12*(1), 90–112. https://doi.org/10.24093/awej/vol12no1.7

Efklides, A. (2008). Metacognition: Defining Its Facets and Levels of Functioning in Relation to Self-Regulation and Co-regulation. *European Psychologist*, *13*(4), 277–287. https://doi.org/10.1027/1016-9040.13.4.277

Elizondo, K., Valenzuela, R., Pestana, J. V., & Codina, N. (2024). Self-Regulation and Procrastination in College Students: A Tale of Motivation, Strategy, and Perseverance. *Psychology in the Schools*, *61*(3), 887–902. https://doi.org/10.1002/pits.23088

Flavell, J. H. (1979). Metacognition and Cognitive Monitoring A New Area of Cognitive-Developmental Inquiry. *American Psychologist Association, Inc.*, *34*(10), 906–911. https://doi.org/https://doi.org/10.1037/0003-066X.34.10.906

Hartman, H. J. (2001). Developing Students' Metacognitive Knowledge and Skills. In *Metacognition in Learning and Instruction: Theory, Research, and Practice.* (pp. 33–68). The Netherlands: Kluwer Academic Publishers. https://doi.org/10.1007/978-94-017-2243-8_3

Haukås, Å., Bjørke, C., & Dypedahl, M. (2018). *Metacognition in Language Learning and Teaching* (1st ed.). Routledge. https://www.researchgate.net/publication/325923191

Karatas, K., & Arpaci, I. (2021). The Role of Self-Directed Learning, Metacognition, and 21st Century Skills Predicting the Readiness for Online Learning. *Contemporary Educational Technology*, *13*(3). https://doi.org/10.30935/cedtech/10786

Karpicke, J. D., Butler, A. C., & Roediger, H. L. (2009). Metacognitive Strategies in Student Learning: Do Students Practise Retrieval When They Study on Their Own? *Memory*, *17*(4), 471–479. https://doi.org/10.1080/09658210802647009

Kaur, N. (2020). Metacognitive awareness in lexical learning among malaysian students. *International Journal of English Language and Literature Studies*, *9*(3), 161–171. https://doi.org/10.18488/JOURNAL.23.2020.93.161.171

Kumar, P. (2025). *Language Barriers in Education: Challenges and Opportunities for Marginalized, Rural, and Lower Caste Students in India*. https://www.researchgate.net/publication/388817366

Lai, Y. C. (2009). Language Learning Strategy Use and English Proficiency of University Freshmen in Taiwan. *TESOL Quarterly*, *43*(2), 255–280. https://doi.org/10.1002/j.1545-7249.2009.tb00167.x

Li, W. (2013). A Study of Metacognitive Awareness of Non-English Majors in L2 Listening. *Journal of Language Teaching and Research*, *4*(3). https://doi.org/10.4304/jltr.4.3.504-510

Miles, M. B., Huberman, A. M., & Saldana, J. (2014). *Qualitative Data Analysis: A Methods Sourcebook* (3rd ed.). SAGE Publications, Inc.

Mohseni, F., Seifoori, Z., & Ahangari, S. (2020). The Impact of Metacognitive Strategy Training and Critical Thinking Awareness-Raising on Reading Comprehension. *Cogent Education*, *7*(1). https://doi.org/10.1080/2331186X.2020.1720946

Nyimbili, F., & Nyimbili, L. (2024). Types of Purposive Sampling Techniques with Their Examples and Application in Qualitative Research Studies. *British Journal of Multidisciplinary and Advanced Studies:English Lang., Teaching, Literature, Linguistics & Communication*, *5*(1), 90–99. https://doi.org/10.37745/bjmas.2022.0419

O'malley, J. M., Chamot, A. U., Walker, C., Russo, R. P., Kupper, L., Brooks, L., & Sabol, M. A. (1987). *The Role of Learning Strategies in Second Language Acquisition: A Selected Literature Review* (1st ed.). US Army.

Peng, C., Rashid, S. M., & Jiang, L. (2024). The Use of Metacognitive Strategies within a Mobile-Assisted Language Learning Context: Enhancing Chinese EFL Learner's Listening Skills. *Forum for Linguistic Studies*, *6*(6), 410–428. https://doi.org/10.30564/fls.v6i6.7439

Raoofi, S., Chan, S. H., Mukundan, J., & Rashid, S. M. (2013). Metacognition and Second/Foreign Language Learning. *English Language Teaching*, *7*(1), 36–49. https://doi.org/10.5539/elt.v7n1p36

Santi, S., Andriyaningsih, A., Seneru, W., Burmansah, B., Luwiha, L., Pratama, A. S., & Suryanadi, J. (2024). Mindful Learning: Mindfulness Practice Matters for Students on the Quality of Learning in the Classroom. *International Journal of Science and Applied Science: Conference Series*, *8*(2), 53. https://doi.org/10.20961/ijsascs.v8i2.95098

Teng, M. F., Wang, C., & Wu, J. G. (2023). Metacognitive Strategies, Language Learning Motivation, Self-Efficacy Belief, and English Achievement During Remote Learning: A Structural Equation Modelling Approach. *RELC Journal*, *54*(3), 648–666. https://doi.org/10.1177/00336882211040268

Wenden, A. L. (2014). Metacognitive Knowledge in SLA: The Neglected Variable. In M. P. Breen (Ed.), *Learner Contributions to Language Learning New Directions in Research* (2nd ed., pp. 44–64). Routledge.

Yang, F. Y. (2023). Flexibility as a Double-Edged Sword? Language Learner Autonomy in a Blended Self-Directed Learning Program Beyond the Classroom. *Australian Journal of Applied Linguistics*, *6*(3), 188–204. https://doi.org/10.29140/ajal.v6n3.1194

Zhang, X., & Lau, C. (2024). Interest, Home Environment, and Young Chinese Children's Development of English as a Second/Foreign Language. *Journal of Child Language*, 1–24. https://doi.org/10.1017/S0305000924000618

Zhao, C. G., & Liao, L. (2021). Metacognitive Strategy Use in L2 Writing Assessment. *System*, *98*. https://doi.org/10.1016/j.system.2021.102472