

Language learning metacognitive awareness, strategies, and language proficiency among Chinese English majors

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Abstract

This study investigated the demographic characteristics and perceptions of teachers regarding their experience, accountability, and performance. The majority of respondents were female, aged 26-35, with 1-5 years of service, and held a master's degree. A significant portion were aged 25 or younger and approximately 20% possessed only a Bachelor's degree. The findings revealed that teachers generally agreed on the importance of key components of their teaching experience, including guidance, work ethics, and lesson planning which they regarded as vital to enhancing teaching effectiveness. In terms of teaching accountability, respondents strongly agreed on the significance of professionalism, responsibility, and duty. The composite mean indicated a high level of consensus on the critical role these factors play in ensuring effective teaching practices. Regarding teaching performance, accuracy was highly valued, along with quality and outcomes, with all indicators receiving broad agreement for their contribution to effective instruction.

Keywords: language learning metacognitive awareness, language learning strategies, language proficiency, teaching performance, teaching accountability, effective instruction

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1. Introduction

In the globalized world, proficiency in English has become a crucial skill, particularly for non-native speakers. This proficiency is not only a gateway to better educational and professional opportunities but also a means of participating in the global community. Among Chinese students majoring in English, understanding the factors that influence their language learning process is essential for developing effective educational strategies. This study, titled “Majors Language Learning Metacognitive Awareness, Strategies, and Language Proficiency Among Chinese English,” aims to delve into these factors to propose an intervention program that enhances language learning. Language learning is a complex process influenced by various cognitive and metacognitive factors. Metacognitive awareness, which includes knowledge about cognition and regulation of cognition, plays a significant role in how students approach learning tasks. This study will explore the respondents’ metacognitive awareness in terms of declarative knowledge, procedural knowledge, conditional knowledge.

Studies have shown that metacognitive strategies significantly improve language learning outcomes. Therefore, the metacognitive strategies as referring to planning, monitoring and evaluating language learning significantly impacts students’ motivation and engagement. Understanding these factors will help in tailoring interventions that align with students’ motivational drivers. Research indicates that effective metacognitive strategies are particularly effective in promoting sustained language learning. Proficiency in language learning, including listening, speaking, reading and writing. This study will identify these four basic aspects of English and examine how they interact with metacognitive awareness and strategies. Previous research has highlighted the importance of metacognitive awareness and strategies in successful language acquisition.

Despite the growing body of research on language learning strategies, there are still some gaps in understanding how metacognitive awareness and strategies interact with learners’ proficiency, particularly among Chinese English majors. Existing studies often focus on isolated aspects of language learning without considering the holistic interplay of metacognitive awareness, strategies, and language proficiency. This study will be conducted in various universities across China, focusing on English majors. The current problem to be addressed is the sub-optimal language learning outcomes observed among these students, despite their extensive study efforts. By identifying the factors that contribute to these outcomes, the study aims to propose targeted interventions that can enhance language learning efficiency and effectiveness.

The rationale behind conducting this study was grounded in the need to explore and understand the complex factors influencing language learning among Chinese English majors. At the core of this rationale was the recognition that, despite the growing importance of English as a global language, language learning outcomes among Chinese students often fell short of expectations. This gap called for a deeper investigation into the cognitive and affective factors that shaped how students engaged with and mastered the English language. A key focus of this study was the exploration of metacognitive awareness and strategies, as well as language proficiency. By examining these psychological dimensions of language learning, the research aimed to provide valuable insights into the mental processes and learning strategies that underpinned language acquisition. Understanding how students perceived and regulated their own learning led to a more comprehensive theoretical framework that captured the intricate interplay between knowledge, skills, and self-awareness in language development.

In addition to contributing to theoretical knowledge, this study held significant practical implications. By uncovering the factors that influenced language learning success, the study aimed to inform the design of more effective pedagogical strategies and language education programs. Educators and policymakers could benefit

from these findings, utilizing them to develop tailored interventions that catered to the specific needs of students. Ultimately, the goal was to enhance English proficiency, opening up better educational and professional opportunities for the local community and fostering long-term growth. On a personal level, this study reflected a commitment to improving educational practices and empowering students to achieve their language learning objectives. By contributing to a deeper understanding of how learners approached language acquisition, this research aimed to make a meaningful impact on both individual learners and the broader educational landscape.

Objectives of the Study - The purpose of this study was to determine language learning metacognitive awareness, metacognitive strategies, and language proficiency among Chinese English majors to propose an intervention program for the enhancement of language learning. Specifically, this study explored the respondents' language learning metacognitive awareness in terms of declarative knowledge, procedural knowledge, and conditional knowledge; determined the respondents' language learning metacognitive strategies in terms of planning, monitoring, and evaluating language learning; identified the respondents' language proficiency in terms of listening, speaking, reading, and writing; tested the relationships among language learning metacognitive awareness, metacognitive strategies, and language proficiency; and proposed an intervention program for the enhancement of language learning.

2. Methods

Research Design - This study utilized a descriptive research design to examine the relationships between language learning metacognitive awareness, metacognitive strategy, and language proficiency among English Majors at Chinese universities. In this context, the study sought to provide a detailed understanding of how English majors identify relationships between language learning metacognitive awareness, metacognitive strategy, and language proficiency. To achieve this, quantitative data was collected through questionnaires, allowing for a structured examination of the connections between these variables.

Participants of the Study - The researcher intended to collect data from participants by distributing survey questionnaires. This descriptive research method was utilized to efficiently gather participants' responses from Shandong Xiehe University, Shandong Yingcai University, Shandong Jiaotong University, Shandong Jianzhu University, Shandong University of Technology. The objective of the research was to compile data that would enhance the understanding of the interplay between language learning metacognitive awareness, strategies, and English proficiency among Chinese English majors' students. By meticulously analyzing the survey results, the study sought to offer English Learning strategies among Chinese English majors' students.

Data Gathering Instrument - The questionnaire was divided into several sections, each targeting a specific aspect of the research questions. First, demographic information was the initial section, which gathered basic demographic data, including sex, age, university type, and grade level. This information was used to describe the sample and to analyze potential differences in metacognitive awareness, strategies, and English proficiency across different subgroups. Second was metacognitive awareness, which used a modified version of the Metacognitive Awareness Inventory (Schraw et al., 1994) to assess students' knowledge about cognition, regulation of cognition, implementation of cognitive strategies, and evaluation of cognitive strategies. Third, metacognitive strategies measured the students' intrinsic, integrated, identified, introjected, and external motivations for learning English, based on the work of Noels et al. (2000). Fourth, language learning proficiencies explored students' self-efficacy, concept of mother tongue, nature of language learning, learning strategies, and learning motivation.

The objective of the research instrument in this study was to evaluate language learning metacognitive awareness, strategies, and English proficiency among Chinese English majors. Employing a mixed-methods approach, the tool aimed to provide an in-depth understanding of these essential aspects. The instrument underwent rigorous validation and testing procedures, including face validation with an adviser and a linguist to ensure clarity and coherence.

The primary aim of the study was to explore the interplay between language learning metacognitive awareness, strategies, and English proficiency among Chinese English majors. The questionnaires were adapted to include variables from previous relevant studies. The goal of the research was to contribute to the holistic development of these students. Most indicators demonstrated good to excellent internal consistency, with values above 0.8—such as "Knowledge about cognition" (0.910) and "Nature of language learning" (0.906), both rated as excellent. A few indicators, like "Regulation of cognition" (0.792), "Integrated" (0.763), and "Self-efficacy" (0.719), were deemed acceptable.

Data Gathering Procedure - The questionnaire was distributed electronically to maximize response rates and to facilitate data entry and analysis. Participants were recruited through university channels, and their participation was voluntary and confidential. Incentives were offered to encourage participation and to acknowledge the time and effort required to complete the questionnaire. These educational establishments served a varied student population that needed real-world experience and information related to their fields of language study. Formal approval from the appropriate higher authorities was sought prior to the questionnaire's distribution. This clearance guaranteed adherence to data protection laws and ethical standards. Approval from the administration of the participating universities or the institutional research ethics committee was obtained as necessary.

Several best practices were followed to ensure efficient data collection for the study on the learning confidence, career planning, and adaptability of Chinese higher vocational students. First and foremost, to promote cooperation and understanding, the study's aim and objectives were clearly communicated to industry stakeholders as well as potential respondents. Upholding ethical norms also required gaining informed consent prior to delivering the questionnaire and guaranteeing the confidentiality of respondents' answers. Before the questionnaire was widely distributed, pilot testing was conducted to identify any potential issues or ambiguities. Furthermore, a variety of distribution channels—such as email, internet platforms, and in-person contacts—were used to reach a wide range of respondents and to increase response rates. Following these best practices helped ensure the validity and reliability of the study's findings by facilitating an efficient and ethical data collection process. Considering how common digital technology was and how convenient it had become, collecting data online using tools like Wen Juanxing proved to be a successful method. Reaching a wider audience in less time was made possible with questionnaires that were shared via social media or sent via email. It also facilitated automatic data entry and real-time data capture, which expedited the data analysis process. However, alternate techniques, such as paper-based surveys or interviews, were used to ensure inclusivity for respondents who did not have internet access or preferred in-person communication.

Data Analysis - To perform data analysis, the following statistical tools were used. Weighted mean and ranking were used to explore the respondents' language learning metacognitive awareness as to declarative knowledge, procedural knowledge, conditional knowledge; determine the respondents' language learning meta cognitive strategies as to planning, monitoring and evaluating language learning; and identify the respondents' language proficiency in terms of listening, speaking, reading and writing. The result of Shapiro-Wilk Test revealed that p-values of the main variable was less than 0.05 which means that the data set is not normally distributed. Spearman rho was used to test the significant relationship of the treated variables. In addition, post hoc test was also conducted. The following Likert Scale was used in assessing the variables: 3.50-4.00=Strongly Agree; 2.50-3.49=Agree; 1.50-2.49=Disagree; and 1.00-1.49=Strongly Disagree. In addition, all data were treated using a statistical software known as PASW version 26 to further interpret the result of the study using an alpha level of 0.05 and 0.01.

Ethical Considerations - To safeguard the privacy of respondents, the researcher refrained from disclosing any individual identities. The study incorporated strategies to mitigate potential risks to participants. The participants received detailed explanations of any potentially uncomfortable procedures and measures implemented to guarantee their comfort and safety throughout the study. The study conducted a risk assessment, and an ethical committee evaluated the study to guarantee that risks were reduced and offset by potential benefits.

The researcher ensured confidentiality in personal interactions with the participants, respected their privacy, and obtained consent before accessing any sensitive information. The analysis was conducted in a manner that prioritized the well-being of the participants and ensured that their data were accurately represented in the study. The researchers abstained from expressing personal viewpoints and solely presented information and findings derived from the collected data. Respondents were assured of the confidentiality of their responses and were informed that the survey would serve the purpose of this study. Furthermore, the study underwent a rigorous ethics review process and was approved by the Lyceum of the Philippines University – Batangas Ethics Review Committee.

3. Results and discussion

Table 1

Summary Table on Language Learning Metacognitive Awareness

Indicators	Weighted Mean	Verbal Interpretation	Rank
Declarative knowledge	2.88	Agree	2
Procedural knowledge	3.06	Agree	1
Conditional knowledge	2.77	Agree	3
Composite Mean	2.90	Agree	

Legend: 3.50 – 4.00 = Strongly Agree; 2.50 – 3.49 = Agree; 1.50 – 2.49 = Disagree; 1.00 - 1.49 = Strongly Disagree

Table 1 presents a summary of language learning metacognitive awareness across three components: declarative knowledge, procedural knowledge, and conditional knowledge. The composite mean of 2.90 falls within the "Agree" range, indicating that learners generally exhibit a moderate level of metacognitive awareness in their language learning. The ranking and weighted means provide insights into learners' relative strengths and areas needing improvement. The highest-ranked component is procedural knowledge, with a weighted mean of 3.06. This suggests that learners are relatively aware of the steps and strategies involved in the language learning process. Procedural knowledge is crucial for self-regulated learning, as it involves knowing how to apply different strategies effectively. Research by Zimmerman et al. (2020) underscored the importance of procedural knowledge in facilitating academic success, as learners who understand the procedural steps in language learning tend to be more effective in applying appropriate strategies. In the context of Chinese learners, Liu et al. (2021) found that those who understand the specific steps involved in language tasks tend to perform better, demonstrating greater independence and proficiency.

Procedural knowledge refers to the understanding of how to perform tasks, apply strategies, and engage in specific processes during language acquisition. This suggests that learners possess a moderate to strong understanding of how to navigate various language learning tasks, such as how to use different learning strategies effectively in different contexts. The relatively high score for procedural knowledge highlights that learners are somewhat proficient in recognizing which strategies or processes are needed for successful language learning. This is essential because procedural knowledge involves knowing the "how" of learning—how to approach learning materials, manage time, or use techniques for vocabulary retention, grammar understanding, or speaking practice. According to Zimmerman et al. (2020), procedural knowledge plays a critical role in self-regulated learning, as it helps learners plan, monitor, and adjust their learning strategies based on the task at hand. Learners with strong procedural knowledge are better able to employ effective strategies, which leads to greater language acquisition success. In the context of Chinese learners, research by Liu et al. (2021) supported the finding that learners who are aware of the steps and processes in language learning tend to perform better. These learners can apply a range of strategies based on the task and learning environment, enhancing their ability to adapt to various language challenges. Liu et al. (2020) also suggested that procedural knowledge helps learners focus not only on memorization but also on developing communicative and practical language skills, allowing them to use language more flexibly and effectively in different situations.

Despite this, while procedural knowledge ranks highest, the score still indicates that there is room for improvement. It suggests that while learners have a general understanding of how to proceed with language

learning tasks, some may still struggle to apply these strategies consistently or flexibly in real-world language use. Therefore, further development of procedural knowledge through explicit strategy instruction and practice would likely enhance learners' overall language proficiency.

The second highest-ranked component is declarative knowledge, with a weighted mean of 2.88. This indicates that learners are generally aware of the factual information about the language, such as vocabulary and grammar rules. However, the relatively lower score compared to procedural knowledge suggests that while learners possess declarative knowledge, they may struggle to apply it effectively in real language use. Liu et al. (2020) highlighted that many learners are familiar with grammatical rules but may not always know how to use them fluently in communication. Shen et al. (2022) also pointed out that Chinese students often emphasize memorization of declarative knowledge without developing the skills to use this knowledge in dynamic, real-world contexts. This suggests that learners have a foundational understanding of the language's content, such as vocabulary, grammar rules, and sentence structures. However, despite this understanding, the score suggests that learners may struggle to apply this knowledge effectively in real-world language use.

Declarative knowledge involves the awareness of facts and concepts, such as knowing the meaning of a word, understanding grammatical rules, or recognizing language structures. While learners demonstrate solid knowledge in these areas, the relatively lower score compared to procedural knowledge (3.06) indicates that they may face challenges in applying their declarative knowledge in dynamic, real-life language situations. For example, a learner might know the rule for constructing past tense verbs but struggle to use the past tense correctly in conversation.

This finding is consistent with research by Liu et al. (2020), who noted that Chinese students often excel in memorizing declarative knowledge (such as grammar rules and vocabulary) but find it difficult to activate and use that knowledge fluently in practical communication. Shen et al. (2022) also highlighted the gap between declarative knowledge and its application, stating that while learners may recall language rules easily, they may not always know how to apply them effectively in spontaneous, interactive contexts. Furthermore, Liu et al. (2021) pointed out that the education system in China tends to prioritize declarative knowledge, often through rote memorization and exams, rather than fostering the practical application of language skills. This focus can lead to students possessing theoretical knowledge without being able to use it in flexible, communicative situations. The score of 2.88 reflects this trend, suggesting that learners have a decent grasp of language rules but may struggle to integrate this knowledge with the necessary communication skills.

In conclusion, although learners exhibit a reasonable level of declarative knowledge, there is room for improvement in applying this knowledge in real-world language use. Strengthening learners' ability to activate and use their declarative knowledge in dynamic, communicative contexts is essential for improving their overall language proficiency.

The lowest-ranked component is conditional knowledge, with a weighted mean of 2.77. This indicates that while learners have some awareness of when and why to apply certain strategies or knowledge, this component is the least developed. Conditional knowledge is vital for effective language learning, as it allows learners to adapt their strategies based on the task and context. Choi et al. (2023) emphasize the importance of flexibility in strategy use, as learners who can adjust their approach based on the situation tend to perform better. However, in China, Li et al. (2022) noted that the rigid, exam-focused education system limits opportunities for students to develop flexible, context-driven learning strategies, which might explain the lower score in conditional knowledge. However, the relatively lower score suggests that learners may not have a strong or fully developed awareness of how to adapt their learning strategies based on different contexts or tasks.

Conditional knowledge refers to the awareness of the conditions under which specific strategies or pieces of knowledge are most effectively applied. It involves knowing when to use certain techniques, why they are effective in a given situation, and how to modify one's approach based on the learning task or environment. The score of 2.77, while still within the "Agree" range, indicates that learners might not consistently recognize the

optimal contexts for employing various strategies, which can hinder their language learning progress.

This finding aligns with research by Choi et al. (2023), who emphasized that conditional knowledge is critical for flexibility in language learning. Learners with strong conditional knowledge can adapt their strategies based on the specific demands of a task or situation, leading to better language learning outcomes. However, learners who lack this awareness may continue using strategies that are not well-suited for tasks, which can impede their language acquisition. In the context of Chinese learners, Li et al. (2022) noted that the exam-driven education system often emphasizes fixed approaches to learning and assessment, leaving little room for learners to develop the adaptive, context-specific strategies required for conditional knowledge. As a result, learners may have a set repertoire of strategies but struggle to determine when and how to use them effectively in varying situations. Thus, while learners may have some awareness of when to use particular strategies, their understanding of the conditions that make certain strategies more effective is underdeveloped. Strengthening learners' conditional knowledge through explicit instruction on how to assess different learning contexts and adapt strategies accordingly could significantly enhance their language learning outcomes.

In conclusion, while learners generally demonstrate a moderate level of metacognitive awareness, the results suggest that there is room for improvement in conditional knowledge. Enhancing learners' ability to recognize when and how to apply specific strategies, particularly in real-world contexts, would likely improve their overall language learning success.

Table 2

Summary Table on Metacognitive Strategies

Indicators	Weighted Mean	Verbal Interpretation	Rank
Planning language learning	3.04	Agree	3
Monitoring language learning	3.17	Agree	1
Evaluating language learning	3.12	Agree	2
Composite Mean	3.11	Agree	

Legend: 3.50 – 4.00 = Strongly Agree; 2.50 – 3.49 = Agree; 1.50 – 2.49 = Disagree; 1.00 - 1.49 = Strongly Disagree

Table 2 provides a summary of the **metacognitive strategies** employed by learners in their language learning process, focusing on three key areas: **planning**, **monitoring**, and evaluating. The table displays the weighted mean for each indicator, alongside a composite mean of 3.11, which falls in the "Agree" range, indicating that learners generally engage in these metacognitive strategies but could benefit from more consistent application.

The highest-ranked indicator is "Monitoring language learning" (WM: 3.17). This suggests that learners actively track their progress during the language learning process, regularly checking their understanding and adjusting as needed. Monitoring is a crucial metacognitive strategy because it allows learners to identify when they are struggling and adapt their strategies accordingly. Research by Vandergrift et al. (2021) supported this by noting that learners who engage in regular monitoring can adjust their approach in real-time, leading to more effective learning. Monitoring helps learners stay engaged, recognize misunderstandings early, and ensure they are progressing toward their goals. According to Zimmerman et al. (2020), monitoring also enhances self-regulation, empowering learners to control their learning outcomes by adjusting strategies when necessary.

The second-ranked strategy, "Evaluating language learning" (WM: 3.12), indicates that learners assess their performance after completing tasks. This form of self-reflection is vital for metacognitive awareness, as it helps learners determine whether they met their learning goals and identify areas for improvement. Choi et al. (2023) argued that such evaluations deepen learning by encouraging learners to reflect on their effectiveness and refine their strategies. Evaluating performance not only informs future learning strategies but also fosters a growth mindset, as learners recognize that their language abilities can improve through effort and reflection. Oxford (2021) highlighted that evaluating one's learning helps learners understand the strengths and weaknesses of their language skills, guiding them to set more realistic and targeted goals in subsequent learning experiences.

The lowest-ranked indicator is "Planning language learning" (WM: 3.04). While this still falls within the "Agree" range, it suggests that learners may not place as much emphasis on planning their learning activities as they do on monitoring and evaluating. Effective planning is essential for organizing learning tasks, setting specific goals, and allocating time and resources efficiently. Yang et al. (2023) noted that strong planning skills significantly contribute to successful language acquisition, as learners are more likely to approach tasks systematically and achieve their learning objectives. However, the lower ranking indicates that some learners may not consistently engage in detailed planning, which could limit their ability to focus on the most important aspects of language learning. Zimmerman et al. (2020) emphasized the importance of planning in self-regulated learning, as it helps learners structure their approach and maximize their potential.

In conclusion, while monitoring and evaluating are well-developed metacognitive strategies among learners, planning appears to be an area where further emphasis is needed. The relatively lower score for planning suggests that learners might benefit from additional support and guidance in setting clear learning goals and structuring their study sessions. Encouraging learners to improve their planning skills could enhance their overall effectiveness in language learning by helping them approach their tasks more strategically and intentionally. As Vandergrift et al. (2021) suggested, incorporating all three meta cognitive strategies, planning, monitoring, and evaluating—can lead to more successful, self-regulated language learning experiences.

Table 3

Summary Table on Language Proficiency

Indicators	Weighted Mean	Verbal Interpretation	Rank
Listening	2.32	Disagree	4
Speaking	2.81	Agree	2
Reading	2.89	Agree	1
Writing	2.60	Agree	3
Composite Mean	2.66	Agree	

Legend: 3.50 – 4.00 = Strongly Agree; 2.50 – 3.49 = Agree; 1.50 – 2.49 = Disagree; 1.00 - 1.49 = Strongly Disagree

Table 3 presents a summary of students' language proficiency across four skills: reading, speaking, writing, and listening, based on their weighted mean scores and verbal interpretations. Among the indicators, **reading** ranks first with the highest weighted mean of 2.89 suggesting that students feel most confident in their reading skills. This suggests that students perceive themselves as relatively proficient in reading, showing stronger skills in understanding written texts compared to speaking, writing, and listening. This finding aligns with recent literature emphasizing the critical role of reading in overall language development. Alamer (2021) highlighted that reading comprehension contributes significantly to vocabulary expansion, grammatical awareness, and critical thinking, all of which are essential for mastering a second language. Similarly, Chen et al. (2020) found that students who frequently engage in extensive reading activities tend to demonstrate higher language proficiency levels, as reading not only improves comprehension but also supports other language domains like writing and speaking. Furthermore, Zhou (2022) emphasized that the integration of technology-assisted reading programs has led to greater engagement and improved reading outcomes among students. Meanwhile, Rahmani et al. (2023) asserted that exposure to varied reading materials, including academic articles, fiction, and multimedia texts, enhances students' cognitive and linguistic skills, preparing them for academic and professional success. Lastly, Sun et al. (2024) argued that fostering independent reading habits is crucial in strengthening not just language skills but also lifelong learning competencies. These studies supported the current finding that reading remains the strongest language skill among students today.

This is followed by speaking, which holds the second rank with a weighted mean of 2.81 indicating a generally positive perception of their ability to express themselves orally. This indicates that students generally perceive themselves as capable of expressing their ideas verbally, although not as strongly as they do in reading. Speaking skills are critical because they involve not only linguistic competence but also real-time processing and interaction abilities. According to Chen et al. (2020), speaking proficiency improves significantly in environments that encourage interactive communication, such as group discussions, debates, and oral

presentations. Alamer et al. (2021) further emphasized that speaking fluency is closely tied to students' willingness to communicate and their exposure to authentic speaking opportunities. Additionally, Mahmoodi et al. (2022) found that technology integration, such as using mobile apps and online speaking platforms, has a positive effect on improving speaking confidence and proficiency among students. Rahman et al. (2023) highlighted that peer-assisted learning models help build students' speaking skills by providing supportive and less formal practice environments. Finally, Yuan et al. (2024) pointed out that anxiety reduction strategies and continuous formative feedback play a vital role in developing speaking competence among language learners. These findings from recent studies validate the result that speaking is a relatively strong skill area for students but still has potential for further development through more interactive and supportive learning environments.

Writing comes next in third place with a weighted mean of 2.60 reflecting a moderate level of confidence in written communication. This aligns with several studies that have examined the perceptions of writing abilities in both educational and workplace contexts. For instance, Smith et al. (2020) found that while students often report a moderate level of confidence in academic writing, they also express a desire for further improvement to enhance their academic success. Similarly, Johnson (2021) explored how students' self-reported confidence in writing influenced their academic performance, revealing that those with moderate confidence were more likely to engage in writing tasks but still sought opportunities to refine their skills.

Writing is widely recognized as a critical skill in education. Brown et al. (2022) highlighted that students in higher education often perceive their writing abilities as moderate, which reflects the broader trend of self-assessment seen in the 2.60 weighted mean. Despite their moderate confidence, these students acknowledged the importance of writing for academic success and sought support to improve their communication skills. Martinez et al. (2023) also found that students in post-secondary education tend to struggle with their confidence in writing, particularly in high-stakes academic environments, which contributes to the moderate level of confidence reported by many individuals.

The workplace context similarly reveals insights into the role of writing confidence. Roberts et al. (2021) conducted a study in which they found that employees who rated their writing abilities at a moderate level were more likely to engage in workplace communication, but they also faced challenges in tasks such as report writing and email communication. Anderson (2024) explored the impact of writing confidence on professional environments and found that those who perceived their writing abilities as moderately confident often felt anxiety in tasks requiring written communication and frequently sought additional training to improve. These findings suggest that while moderate writing confidence may not necessarily hinder communication, it does indicate that individuals perceive room for growth. The composite mean across all skills is 2.66, which falls under the "Agree" category. This suggests that, overall, students have a positive but modest perception of their language proficiency, with room for improvement, especially in listening skills.

Alamer (2021) emphasized the importance of reading as a foundational skill for language learners, highlighting that exposure to diverse reading materials significantly enhances language proficiency. Similarly, Chen et al. (2020) noted that speaking skills tend to develop strongly in environments promoting active communication, supporting the second place ranking of speaking in the current study. In terms of writing, Zhou (2022) identified that while students generally perform adequately in academic writing, gaps often exist due to limited practice and feedback, which may explain why writing ranks third.

As for listening, recent studies such as Rahmani et al. (2023) have pointed out that listening remains a challenging skill for many language learners, often due to difficulties in understanding various accents, speech speeds, and authentic listening materials. This difficulty could be a significant reason why listening proficiency was rated the lowest in this study. Sun et al. (2024) suggested that the lack of active listening strategies among learners continues to be a barrier to achieving higher levels of listening proficiency. While students generally agree that they are proficient in language skills, there is a clear need to strengthen their listening abilities to achieve a more balanced and advanced language proficiency profile.

Table 4

Relationship Between Language Learning Metacognitive Awareness and Metacognitive Strategies

Declarative knowledge	rho-value	p-value	Interpretation
Planning language learning	.741**	<.001	Highly Significant
Monitoring language learning	.723**	<.001	Highly Significant
Evaluating language learning	.693**	<.001	Highly Significant
Procedural knowledge			
Planning language learning	.761**	<.001	Highly Significant
Monitoring language learning	.830**	<.001	Highly Significant
Evaluating language learning	.790**	<.001	Highly Significant
Conditional knowledge			
Planning language learning	0.029	0.557	Not Significant
Monitoring language learning	-0.026	0.586	Not Significant
Evaluating language learning	-0.017	0.731	Not Significant

Legend: Significant at p-value < 0.01

Table 4 presents the association between Language Learning Metacognitive Awareness and metacognitive strategies. The computed r-values indicates a strong direct correlation and the resulted p-values were less than the alpha level except on conditional knowledge. This means that there was significant relationship exists between the two variables. Result implies that the better is the language learning metacognitive awareness, the better is the metacognitive strategies.

Table 4 shows the relationship between language learning metacognitive awareness (declarative, procedural, and conditional knowledge) and the use of metacognitive strategies (planning, monitoring, and evaluating language learning). The results reveal that both declarative and procedural knowledge are highly significantly and positively correlated with all three metacognitive strategies. Specifically, declarative knowledge shows strong positive correlations with planning ($\rho=.741$, $p<.001$), monitoring ($\rho=.723$, $p<.001$), and evaluating ($\rho=.693$, $p<.001$). Procedural knowledge demonstrates even stronger positive correlations with planning ($\rho=.761$, $p<.001$), monitoring ($\rho=.830$, $p<.001$), and evaluating ($\rho=.790$, $p<.001$). In contrast, conditional knowledge does not show any significant relationship with the three metacognitive strategies, as all p-values are greater than 0.01. These findings suggest that higher declarative and procedural metacognitive awareness is closely linked to more frequent use of planning, monitoring, and evaluating strategies in language learning, while conditional knowledge appears unrelated to strategy use.

Table 5

Relationship Between Language Learning Metacognitive Awareness and Language Proficiency

Declarative knowledge	rho-value	p-value	Interpretation
Listening	-0.054	0.267	Not Significant
Speaking	.606**	<.001	Highly Significant
Reading	.569**	<.001	Highly Significant
Writing	-0.005	0.923	Not Significant
Procedural knowledge			
Listening	-0.003	0.946	Not Significant
Speaking	.618**	<.001	Highly Significant
Reading	.635**	<.001	Highly Significant
Writing	0.026	0.588	Not Significant
Conditional knowledge			
Listening	-.096*	0.047	Significant
Speaking	-0.034	0.479	Not Significant
Reading	-0.086	0.078	Not Significant
Writing	-0.021	0.672	Not Significant

Legend: Significant at p-value < 0.01

Table 5 shows the association between Language Learning Metacognitive Awareness and Language Proficiency. Computed r-values indicates a almost negligible to strong direct / indirect direct correlation however only few resulted p-values were less than the alpha level except on conditional knowledge. This means that there was significant relationship exists between the variables treated. Result implies that the better is the language

learning metacognitive awareness, the better is the language proficiency.

Table 5 presents the relationship between language learning metacognitive awareness and language proficiency, focusing on three types of knowledge: declarative, procedural, and conditional. The findings show that for both declarative and procedural knowledge, there are highly significant positive correlations with speaking (declarative $\rho=.606$, $p<.001$; procedural $\rho=.618$, $p<.001$) and reading (declarative $\rho=.569$, $p<.001$; procedural $\rho=.635$, $p<.001$). This suggests that higher levels of declarative and procedural metacognitive awareness are associated with stronger speaking and reading skills. In contrast, listening and writing skills do not show significant relationships with either declarative or procedural knowledge, as indicated by their non-significant p-values. Regarding conditional knowledge, only listening shows a significant but weak negative correlation ($\rho=-.096$, $p=.047$), which is considered significant at the 0.05 level but not at the stricter 0.01 threshold indicated in the legend. Speaking, reading, and writing skills do not exhibit significant relationships with conditional knowledge. Overall, these results highlight that declarative and procedural metacognitive awareness are important factors associated with speaking and reading proficiency, while conditional knowledge shows minimal and mostly non-significant relationships with language skills.

Table 6

Relationship Between Metacognitive Strategies and Language Proficiency

Planning language learning	rho-value	p-value	Interpretation
Listening	-0.087	0.074	Not Significant
Speaking	.733**	<.001	Highly Significant
Reading	.588**	<.001	Highly Significant
Writing	0.042	0.387	Not Significant
Monitoring language learning			
Listening	-0.052	0.281	Not Significant
Speaking	.657**	<.001	Highly Significant
Reading	.677**	<.001	Highly Significant
Writing	0.069	0.158	Not Significant
Evaluating language learning			
Listening	-0.058	0.233	Not Significant
Speaking	.681**	<.001	Highly Significant
Reading	.704**	<.001	Highly Significant
Writing	0.081	0.096	Not Significant

Legend: Significant at p-value < 0.01

Table 6 illustrates the association between Metacognitive Strategies and Language Proficiency. The computed r-values indicates a almost negligible to strong direct/indirect direct correlation however only few resulted p-values were less than the alpha level except on conditional knowledge. This means that there was significant relationship exists between the variables treated. Result implies that the better is the metacognitive strategies, the better is the language proficiency. It presents the relationship between metacognitive strategies and language proficiency across four language skills: listening, speaking, reading, and writing. Results show that for the skill of speaking, there is a highly significant positive correlation with all three metacognitive strategies—planning ($\rho=.733$, $p<.001$), monitoring ($\rho=.657$, $p<.001$), and evaluating ($\rho=.681$, $p<.001$). Reading also shows highly significant positive correlations with planning ($\rho=.588$, $p<.001$), monitoring ($\rho=.677$, $p<.001$), and evaluating ($\rho=.704$, $p<.001$).

In contrast, listening and writing skills do not exhibit significant correlations with any of the metacognitive strategies, as their p-values exceed the 0.01 significance threshold. Specifically, the correlations for listening range from $\rho = -0.087$ to -0.058 , and for writing from $\rho = 0.042$ to 0.081 , all with non-significant p-values. Overall, these findings suggest that metacognitive strategies are strongly associated with higher proficiency in speaking and reading, but not significantly related to listening and writing skills. The program aims to enhance language learning by improving metacognitive awareness and strategies, focusing on declarative, procedural, and conditional knowledge. It includes pre-assessments, interactive training sessions, practice with feedback, and post-assessments.

Table 7

Proposed Enhancement of Language Learning Metacognitive Awareness and Strategies

Key Result Area (KRA)	Objective	Activities	Success Indicators	Persons Involved
1. Language Learning – Metacognitive Awareness – Conditional Knowledge	To enhance students' understanding of when, why, and how to use specific language learning strategies effectively.	- Conduct orientation seminars on metacognitive awareness. - Integrate strategy-awareness modules in English classes. - Facilitate reflective journaling sessions on learning experiences.	- At least 80% of students demonstrate improved metacognitive awareness based on pre- and post-assessment surveys. - Regular reflective journals submitted and evaluated.	English Faculty Language Instructors Guidance Counselor
2. Metacognitive Strategies – Planning Language Learning	To develop students' abilities to effectively plan and manage their language learning processes.	- Introduce goal-setting and self-directed learning workshops. - Design a Language Learning Planner for students. - Encourage peer mentoring and collaborative planning.	- 75% of students regularly use Language Learning Planners. - Improvement in autonomous learning tasks. - Positive feedback from peer mentoring sessions.	English Faculty Academic Advisers Student Leaders
3. Language Proficiency – Listening	To improve students' listening comprehension skills through targeted strategies and activities.	- Integrate listening strategy training in class. - Use authentic audio materials (podcasts, news, etc.) for practice. - Conduct listening comprehension exercises with metacognitive reflection.	- Increase in listening proficiency test scores. - Student reflections show increased awareness of listening strategies. - Consistent engagement in listening tasks.	English Language Instructors Curriculum Developer ICT Coordinator

4. Conclusions and recommendations

Respondents exhibit a moderate level of metacognitive awareness in language learning, with the highest agreement in procedural knowledge. While declarative knowledge also shows strong agreement, conditional knowledge ranks lowest, suggesting a gap in applying learning strategies to diverse contexts. Respondents moderately use metacognitive strategies, with the highest emphasis on monitoring language learning. Respondents agree more with their proficiency in reading, followed by speaking and writing, while listening proficiency is the lowest. There is a highly significant relationship between metacognitive awareness (declarative and procedural knowledge) and metacognitive strategies (planning, monitoring, and evaluating language learning), with all correlations showing strong positive values. Created a program that enhances language learning through targeted metacognitive strategies, focusing on declarative, procedural, and conditional knowledge.

The **Program Director may** ensure the program remains tailored to the needs of students with a focus on improving conditional knowledge, as this area showed the lowest level of awareness. The **Language Learning Experts may encourage** incorporate more context-based learning strategies that encourage students to apply knowledge in real-world scenarios, especially focusing on conditional knowledge. The **Program Participants may** engage more actively in monitoring and evaluating their learning, focusing on using metacognitive strategies to bridge the gap in conditional knowledge. The **School Support Staff may** provide consistent logistical and resource support to ensure smooth program implementation, particularly for participants from public universities. The **School Administration may** consider allocating resources and creating opportunities for further research on the relationship between sex, type of school, and metacognitive awareness, as well as ensuring that programs targeting metacognitive strategies are institutionalized and supported by long-term strategies. **Future Researchers may** explore further into the relationship between conditional knowledge and real-world language application. Future studies could focus on the effectiveness of various metacognitive strategies and how they influence different aspects of language proficiency, particularly in listening and speaking.

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