

Exploring Metacognitive Strategies In English Language Learning For Non-Language Students

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Abstract

This study aims to describe the application of metacognitive strategies in English language learning among students of the Management Study Program at Mandalika University of Education. Metacognitive strategies are considered important because they help students manage their thinking processes, organize learning strategies, and reflect on learning outcomes. This study uses a mixed methods approach with quantitative and qualitative descriptive approaches. A total of 35 active students were selected as respondents through purposive sampling. Data were collected using a metacognitive strategy questionnaire and semi-structured interviews. Descriptive analysis results show that the overall level of metacognitive strategy application among students is in the high category with an average score of 3.98. The planning dimension ranked highest with an average score of 4.18, followed by the monitoring dimension with a score of 3.92, and the evaluating dimension with a score of 3.85. Qualitative findings supported these results by showing that most students had good learning awareness, although the aspects of reflection and self-evaluation were not carried out consistently. The results of this study confirm that the application of metacognitive strategies plays an important role in shaping independent and reflective learners, as well as forming the basis for the development of a more effective English learning model for non-language students in higher education.

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1. INTRODUCTION

English language proficiency has become a basic requirement in higher education and the workplace in today's global era. Mastery of English allows students to access international knowledge sources, participate in global academic forums, and increase their competitiveness in the job market (Waluyudin & Annisah, 2024). However, English proficiency among Indonesian students, especially those from non-language study programs, is still relatively low. This condition is also found among students of the Management Study Program at Mandalika University of Education, which is the focus of this study.

Initial observations and interviews with English lecturers show that many Management students at Mandalika University of Education still have difficulty understanding academic texts, writing essays, and expressing ideas orally in English. These problems are not only related to limited vocabulary or grammar, but also caused by students' low awareness in managing and monitoring their learning process. This shows that metacognitive awareness, which is the ability to think about one's own thinking and learning (Van & Habók, 2023) has not yet developed

Metacognitive strategies are an important approach to improving the effectiveness of language learning. According to (Stephanou et al., 2017), metacognition encompasses two main aspects, namely knowledge about thinking processes (metacognitive knowledge) and control over learning processes (metacognitive regulation). This strategy enables students to plan, monitor, and evaluate their learning, allowing them to learn more effectively and independently. In other

words, students with good metacognitive abilities can identify their mistakes, adjust their learning strategies, and make more appropriate decisions in achieving their language learning goals (Tharmalingam et al., 2024).

In the context of learning English as a foreign language (EFL), metacognitive strategies have been shown to influence improvements in students' reading and writing skills, as well as their motivation to learn. In addition, (Cai, 2024) shows that metacognitive strategies play an important role in helping students manage their thinking processes when faced with complex linguistic tasks. Meanwhile, (Muhid et al., 2020) emphasizes that the application of metacognitive strategies can improve reading comprehension skills because it involves high-level reflective and analytical activities. This is in line with the view of (Lv & Chen, 2010), which emphasizes the importance of teaching metacognitive-based strategies in improving students' writing and critical thinking skills.

However, most previous studies were conducted on students with a background in language education, while non-language students, such as those in the Management Study Program at Mandalika University of Education, were rarely used as research subjects (Blidi, 2016; Imran & Hidayatullah, 2020, 2021; Muhlisin & Imran, 2024). Non-language students generally study English for academic and professional needs, not because of an intrinsic interest in the language itself. As a result, their learning motivation tends to be instrumental and their learning process is passive (Imran & Aprianoto, 2022). In addition, low reading habits and lack of self-reflection are also factors that hinder English language learning (Imran et al., 2020; Imran & Aprianoto, 2022).

Research (Warta et al., 2021) shows that differences in students' perceptions and learning habits can be influenced by gender and academic background. Therefore, English language learning for non-language students requires a more reflective and adaptive approach to their needs. In this case, metacognitive strategies are very relevant in helping students develop better *learning awareness, self-responsibility, and self-regulated learning* skills.

In addition to impacting learning outcomes, metacognitive strategies have also been shown to increase student motivation and self-confidence. Furthermore, (Muhlisin & Imran, 2023) found that metacognitive strategies play an important role in increasing student motivation and self-confidence in English language learning. When students are able to plan and evaluate their own learning processes, they become more motivated to improve their learning outcomes. Similarly, (Hidayati & Imran, 2023) showed that students' interest and active involvement in the learning process have a positive correlation with academic achievement.

In a pedagogical context, the integration of metacognitive strategies in English language learning is very important for non-language students. (Oxford, 2022) emphasizes that learning strategies, including metacognitive ones, must be taught explicitly so that students are able to apply them independently. Instructors need to create a learning environment that encourages reflection, self-evaluation, and collaboration, so that students can develop metacognitive awareness through meaningful learning experiences. Meanwhile, (Muhlisin & Imran, 2024) found that the use of visual media can support vocabulary acquisition and help students activate metacognitive awareness in understanding language meaning.

The conditions in the Management Study Program at Mandalika University show that most students do not yet have the ability to plan their learning activities systematically, rarely monitor their own understanding during the learning process, and are not accustomed to evaluating their learning outcomes. Learning is still product-oriented (final results) and does not emphasize the reflective process. This indicates the need for pedagogical intervention that focuses on developing metacognitive strategies so that students can learn more independently, reflectively, and effectively.

Based on this background, this study aims to explore metacognitive strategies in English language learning among students of the Management Study Program at Mandalika University of Education. This study seeks to identify the extent to which students apply metacognitive strategies in the English learning process, the factors that influence the effectiveness of their application,

and how the results of this exploration can be used to design a metacognitive strategy-based learning model that is suitable for the characteristics of non-language students.

Theoretically, this study is expected to contribute to the development of research on metacognitive strategies in the context of foreign language learning in higher education. In practical terms, the results of this study can serve as a basis for lecturers in designing more reflective, student-centered, and *self-awareness-based* learning. Thus, the application of metacognitive strategies is expected to increase the motivation, confidence, and learning achievement of non-language students at Mandalika University of Education.

2. RESEARCH METHODS

Research Design

This study uses a mixed methods approach that combines quantitative and qualitative approaches. The quantitative approach is used to measure the level of metacognitive strategy use through questionnaires, while the qualitative approach is used to gain in-depth understanding through interviews. The research design is descriptive and exploratory, with the aim of comprehensively describing the application of metacognitive strategies in English language learning among non-language students.

Table 1
Research design

Component	Description
Research Approach	Mixed methods (quantitative and qualitative)
Type of Research	Exploratory descriptive
Sample	35 students from the Management Study Program at Mandalika University of Education
Sampling Technique	Purposive sampling
Data Collection Instruments	Metacognitive strategy questionnaire and semi-structured interviews
Data Analysis Techniques	Descriptive statistics and thematic analysis

Research Instruments

The main research instruments are a metacognitive strategy questionnaire and semi-structured interviews. The questionnaire is designed to measure the level of metacognitive strategy use, which includes three main dimensions, namely *planning*, *monitoring*, and *evaluating*. The following is the format of the research instruments used:

Table 2
Research instrument format

No	Dimensions of Metacognitive Strategies	Measurement Indicators	Rating Scale (Likert scale)
1	Planning	<ul style="list-style-type: none"> Setting learning objectives; Managing study time; Determining strategies before studying 	1. = Strongly disagree 2. = Disagree 3. = Neutral 4. = Agree 5. = Strongly Agree
2	Monitoring	<ul style="list-style-type: none"> Monitoring understanding while learning; Identifying difficulties; Noting parts that are not yet understood. 	
3	Evaluating	<ul style="list-style-type: none"> Evaluating the effectiveness of learning strategies; 	

No	Dimensions of Metacognitive Strategies	Measurement Indicators	Rating Scale (Likert scale)
		<ul style="list-style-type: none"> Assessing the achievement of learning objectives; Developing improvement measures. 	

3. RESEARCH RESULTS AND DISCUSSION

This section presents the results of research obtained from analyzing questionnaire data and interviews with 35 students of the Management Study Program at Mandalika University of Education. Data was collected to describe the extent to which students apply metacognitive strategies in English language learning, which consists of three main dimensions: planning, monitoring, and evaluation.

A total of 35 students participated in the study, consisting of 17 male students (48.6%) and 18 female students (51.4%), ranging in age from 19 to 22 years old. The majority of respondents were in their third and fifth semesters, who had generally taken at least one semester of general English courses. Most respondents (around 74%) stated that they studied English for academic and professional reasons, not because of an intrinsic interest in the language.

This shows that the motivation of Management students at Mandalika University to learn English is instrumental, influenced by practical goals such as understanding business literature, preparing for certification exams, or improving job opportunities. This condition is an important context in understanding how their metacognitive strategies develop during the learning process.

Finding

Quantitative Analysis

Quantitative data analysis was conducted to examine the level of metacognitive strategy implementation based on the results of questionnaires completed by 35 respondents. Data were analyzed using descriptive statistics in the form of means and standard deviations (SD) for each dimension.

Table 3
Analysis of Students' Metacognitive Strategies

No	Dimension of Metacognitive Strategy	Mean	Standard Deviation	Category
1	Planning	4.18	0.56	Very High
2	Monitoring	3.92	0.63	High
3	Evaluating	3.85	0.60	High
Mean		3.98		

To clarify the comparison between the dimensions of metacognitive strategies, the questionnaire data results are presented in a bar chart as shown in Figure 1 below.

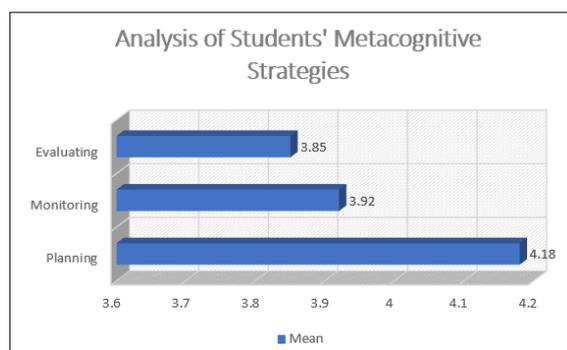


Figure 1.

Level of Metacognitive Strategies by Students

The graph above shows that planning is the dimension most strongly applied by students, followed by monitoring and evaluating. The relatively small difference in scores between dimensions ($\Delta = 0.33$) indicates that students have fairly balanced metacognitive abilities, but the aspect of self-evaluation still needs to be strengthened.

Qualitative Analysis

In addition to quantitative results, in-depth interviews were conducted with five selected students to gain a deeper understanding of the application of metacognitive strategies in the English language learning process. The results of the thematic analysis revealed several main patterns as follows:

1. Initial Awareness and Learning Objectives

Most students stated that they had specific goals when learning English, such as "improving business presentation skills" or "understanding academic texts on economics." This shows that initial awareness of learning objectives was well established.

2. Obstacles in Self-Monitoring

Some students admitted that they were unable to monitor their learning progress regularly. One respondent said, "*Saya baru sadar salah setelah dosen memberi umpan balik. Saya jarang mengecek hasil latihan sendiri.*" This shows that the *self-monitoring* mechanism still depends on external guidance from lecturers.

3. Reflection and Learning Evaluation

The majority of students admit that they rarely conduct systematic evaluations of the learning strategies they use. Most only evaluate themselves before exams or after receiving their grades. Spontaneous reflection does occur, but it is not yet structured.

4. The Role of Lecturers and the Learning Environment

The interviews also showed that the learning environment and teaching strategies of lecturers greatly influenced the level of metacognitive strategy application. Students who felt they received reflective guidance from lecturers (for example, through post-assignment discussions) demonstrated higher learning awareness than those who did not.

Overall, the results of the study indicate that students of the Management Study Program at Mandalika University of Education have applied metacognitive strategies well, especially in the aspect of planning. However, the dimensions of monitoring and evaluation still need to be strengthened so that students are not only able to plan, but also able to control and assess the effectiveness of their learning strategies on an ongoing basis.

These findings illustrate that metacognitive strategies play an important role in shaping self-directed learning awareness and reflective abilities, which are important competencies in facing performance-based learning in higher education.

Discussion

The results of the study indicate that students in the Management Study Program at Mandalika University of Education have applied metacognitive strategies in English language learning at a high level (mean = 3.98). These findings indicate that non-language students have a fairly good awareness of the thinking processes and strategies they use during learning. In general, the three dimensions of metacognitive *strategies-planning, monitoring, and evaluating*-show a positive level of application, although there are variations in the depth and consistency of their use among respondents.

1. Planning Dimension

The results show that the planning aspect received the highest score (mean = 4.18). This finding illustrates that students have an initial awareness of organizing their learning activities, including setting goals, determining strategies, and managing their study time.

In the context of management students, this planning ability is closely related to the systematic thinking patterns formed from their habits in preparing work plans, reports, and business strategies. This ability appears to be transferred to English language learning activities, where students are accustomed to targeting specific achievements, such as improving their formal speaking skills or understanding academic texts.

However, some students admitted that their planning was still short-term, for example, only before exams or presentations. This shows that awareness of long-term planning needs to be continuously developed so that learning strategies are more sustainable, not just responsive to immediate needs.

2. Monitoring Dimension

The *monitoring* dimension received a high score (mean = 3.92), indicating that students were quite good at monitoring their understanding and learning progress. Some students were able to recognize grammatical or pronunciation errors and review material that they did not understand.

However, interviews revealed that most students still rely on lecturer feedback as their main source of reflection. This means that their *self-monitoring* skills are not yet fully independent. Students tend to realize their mistakes after receiving corrections, rather than through introspection during the learning process.

This condition indicates the need to strengthen the aspect of *self-regulated learning*, where students are encouraged to develop habits of self-monitoring, such as using learning journals, recording progress, or evaluating their understanding each time they finish studying.

3. Evaluating Dimension

The evaluation dimension had the lowest average score (mean = 3.85), although it remained in the high category. This indicates that some students do not yet have the habit of structured reflection to assess the effectiveness of their learning strategies.

The interview results support this finding: most students only conduct evaluations after receiving exam scores or feedback from lecturers. Spontaneous reflection occurs, but it has not yet become an integral part of the learning process.

Self-evaluation is an important stage in the development of metacognitive awareness because it helps students recognize their strengths and weaknesses in learning. Therefore, lecturers need to instill reflective practices in lectures, for example through *learning journals*, *self-assessment*, or reflective discussions after assignments so that students become accustomed to assessing the success of the strategies they use.

4. Relationships between Dimensions and Academic Implications

The interrelationship between the three metacognitive dimensions shows that good planning will influence the success of monitoring and evaluation. Students who are accustomed to clearly designing learning objectives tend to find it easier to control the process and assess the results.

These findings reinforce the view that metacognitive strategies are an important foundation in shaping independent learners. In non-language student environments such as Management Study Programs, these strategies also contribute to increased confidence in using English, both verbally and in writing.

From a pedagogical perspective, the results of this study emphasize the need for English language learning that focuses on metacognitive training, rather than just the transfer of linguistic material. This approach can be implemented by integrating reflective activities into each stage of learning, such as: setting learning objectives at the beginning of the course; monitoring understanding through weekly learning journals; and self-evaluation at the end of each learning module.

Overall, the results of this study confirm that students of the Management Study Program at Mandalika University of Education have developed good learning awareness through the application of metacognitive strategies, especially in the aspect of planning. However, the application of self-monitoring and evaluation still needs to be improved so that the learning process becomes more independent and reflective.

The application of metacognitive strategies not only plays a role in improving English language skills, but also in shaping critical thinking, self-management skills, and academic responsibility in students-important values in 21st-century higher education.

4. CONCLUSIONS

This study aims to describe the application of metacognitive strategies in English language learning among students of the Management Study Program at Mandalika University of Education. Based on the results of quantitative and qualitative data analysis, it can be concluded that the level of application of metacognitive strategies among students is generally in the high category, with an overall average score of 3.98. These results indicate that non-language students already have a fairly good awareness of the thinking processes and strategy management used in learning English, although there are still some aspects that need improvement.

Of the three dimensions analyzed, planning was the most prominent aspect with the highest average score of 4.18, indicating that students were able to manage their study time, set goals, and choose learning strategies that suited their academic needs. This reflects their readiness and initial awareness to manage their learning activities independently. Meanwhile, the monitoring dimension received an average score of 3.92, indicating that students have demonstrated good ability in controlling their understanding and checking their learning progress. However, the interview results show that the monitoring process still relies heavily on feedback from lecturers, so it does not fully reflect independent *self-monitoring* abilities.

The final dimension, evaluation, received an average score of 3.85, which is also in the high category, but still shows that the ability to reflect on and assess the effectiveness of learning strategies has not been carried out consistently and systematically. Most students tend to evaluate only when approaching exams or after receiving learning outcomes. This condition shows that the ability to reflect on oneself and evaluate learning strategies still needs to be improved through more intensive habits and pedagogical guidance.

Overall, the results of this study confirm that students of the Management Study Program at Mandalika University of Education have fairly good metacognitive abilities in managing English language learning, especially in terms of planning and awareness of learning objectives. However, the aspects of monitoring and evaluation still require more attention so that the learning process is not only results-oriented but also emphasizes reflective awareness and individual learning responsibility.

The implications of this study indicate that the application of metacognitive strategies plays an important role in shaping independent learners in higher education. These strategies not only help students understand English material more effectively, but also foster critical, reflective, and adaptive thinking skills in response to various academic challenges. Therefore, the development of English language learning in non-language study programs needs to systematically integrate metacognitive strategy training into the curriculum and teaching practices.

For lecturers, the results of this study can be used as a basis for designing more student-centered learning and emphasizing the importance of self-reflection. Approaches such as the use of *learning journals*, *self-assessment*, and reflective discussion activities can help students understand their learning process more deeply. Meanwhile, for students, these findings can encourage awareness of the importance of managing, monitoring, and evaluating the learning process as part of their personal academic responsibility.

Thus, it can be concluded that metacognitive strategies are a key element in improving the quality of English language learning among non-language students. Strengthening the dimensions

of monitoring and evaluation needs to be the main focus in future learning so that students are not only able to plan good learning strategies, but also able to assess their success reflectively and continuously.

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