

An Analysis of Students' Competency in Applying Reading Strategies Based on the Metacognitive Awareness of Reading Strategy Inventory (MARSI)

Rini Septa Angraini. S

Universitas Panca Sakti

E-mail: riniseptaangraini.s@gmail.com

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Abstract: *Reading is a foundational skill in English language learning, especially within English as a Foreign Language (EFL) context. This research investigates the reading strategy application of fourth-semester students at the English Education Department of IAIN Bukittinggi through the lens of the Metacognitive Awareness of Reading Strategy Inventory (MARSI). Employing a descriptive quantitative method, data were collected from 32 randomly selected students using the MARSI questionnaire. The results demonstrate that most students exhibit high competency in utilizing reading strategies, particularly problem-solving strategies. However, variability remains in the application of global and support strategies. The study supports the importance of metacognitive awareness and suggests targeted pedagogical interventions to optimize strategic reading practices in EFL education.*

INTRODUCTION

Reading is one of the most essential skills in acquiring a second or foreign language. It facilitates access to knowledge, vocabulary acquisition, grammar usage, and overall language proficiency. According to Nunan (2003), the development of reading skills significantly impacts learners' broader linguistic capabilities. For English as a Foreign Language (EFL) learners, reading academic texts in English often poses challenges that stem from unfamiliar vocabulary, syntactic complexity, and inadequate strategic knowledge (Rahayu & Widodo, 2020).

In addition to linguistic challenges, reading in a second or foreign language is a cognitively demanding activity. It requires the integration of lower-level processes such as decoding with higher-level skills like inference-making and summarizing. Learners must also employ metacognitive strategies to effectively navigate through different types of texts, monitor their comprehension, and repair misunderstandings. This self-regulatory aspect of reading has been increasingly emphasized in language education research (Zhang, 2018).

Metacognitive awareness in reading refers to a learner's ability to regulate and reflect upon their cognitive processes while engaging with texts (Flavell, 1979; Fitriani et al., 2021). When learners employ metacognitive strategies effectively, they can monitor comprehension, identify difficulties, and select appropriate strategies to address those issues. Research shows that students with higher metacognitive awareness tend to be more successful in academic reading tasks, as they can adapt their approach based on the difficulty of the material and their reading goals (Zhang &

Zhang, 2019).

One of the most widely used instruments for assessing students' metacognitive strategy use is the Metacognitive Awareness of Reading Strategy Inventory (MARSI), developed by Mokhtari and Reichard (2002). This instrument has been validated in various linguistic and educational contexts and remains a reliable tool for evaluating strategic reading behavior. It categorizes reading strategies into Global Reading Strategies (GRS), Problem-Solving Strategies (PSS), and Support Reading Strategies (SRS), providing a comprehensive framework for understanding students' reading approaches.

In the Indonesian higher education context, particularly within Islamic institutions such as IAIN Bukittinggi, English reading materials are a central component of the academic curriculum. However, little empirical research has been conducted to examine how well students apply metacognitive strategies when engaging with these texts. Given the importance of reading in academic success and the increasing complexity of reading materials in tertiary education, it is critical to explore this dimension.

This study investigates how students at IAIN Bukittinggi apply reading strategies according to the MARSI framework. Understanding the level and type of strategic reading behavior can inform curriculum design, pedagogical approaches, and instructional materials aimed at improving reading comprehension in EFL settings.

LITERATURE REVIEW

Reading strategies have long been recognized as a critical component of language learning. Oxford (1990) defines learning strategies as specific actions taken by learners to enhance their learning. In the context of reading, these strategies help learners comprehend, interpret, and retain information from texts. Research by Anderson (2002) emphasizes that successful readers are not only fluent in decoding texts but are also strategic in approaching different types of reading tasks.

Reading strategies can be broadly categorized into two types: cognitive and metacognitive. Cognitive strategies involve manipulating the material to be learned, such as summarizing, translating, or guessing meaning from context. Metacognitive strategies, on the other hand, involve thinking about the learning process itself—planning, monitoring, and evaluating reading comprehension (Zhang & Zhang, 2019; Chamot, 2005).

One of the most influential tools developed to assess metacognitive reading strategy use is the Metacognitive Awareness of Reading Strategy Inventory (MARSI), developed by Mokhtari and Reichard (2002). The MARSI divides reading strategies into three main categories:

1. Global Reading Strategies (GRS): These include actions like setting reading goals, using background knowledge, and previewing the text.
2. Problem-Solving Strategies (PSS): These involve localized and corrective actions such as rereading, guessing unknown words, or slowing down when the text becomes difficult.
3. Support Reading Strategies (SRS): These include using reference materials, note-taking, underlining, and paraphrasing.

Numerous studies have validated the MARSI framework in different educational contexts. For instance, Zhang and Wu (2009) confirmed that MARSI is a reliable tool for measuring strategy use among Chinese EFL learners. Fitriani et al. (2021) also found that Indonesian university students with high MARSI scores performed significantly better in reading comprehension tasks. In another study, Al-Mekhlafi et al. (2021) highlighted that metacognitive strategies are crucial in digital reading environments where students navigate online texts.

Furthermore, Amelia and Harida (2023) argue that digital literacy is increasingly

intertwined with metacognitive awareness, especially in hybrid and online learning settings. Their study emphasizes the role of adaptive strategy use depending on the reading medium, be it print or screen-based.

In the Indonesian context, research by Rahayu and Widodo (2020) demonstrates that EFL students tend to favor problem-solving strategies over global or support strategies. This preference is linked to immediate comprehension needs when dealing with challenging vocabulary or sentence structures. However, the underutilization of global and support strategies could limit deeper comprehension and long-term retention.

In summary, the existing literature underscores the importance of strategic and metacognitive reading behavior in academic success. While instruments like MARSİ provide a reliable framework for measuring this behavior, contextual studies such as this one are necessary to adapt pedagogical practices to local needs and learner profiles.

METHODOLOGY

This study employed a descriptive quantitative research design to systematically explore the metacognitive reading strategy awareness among EFL learners. The target population included 126 fourth-semester students enrolled in the English Education Department of IAIN Bukittinggi. Based on Krejcie and Morgan's (1970) sample size determination table, 32 students (approximately 25% of the population) were randomly selected as a representative sample using a simple random sampling technique, ensuring objectivity and minimizing selection bias.

The main research instrument was the MARSİ (Metacognitive Awareness of Reading Strategy Inventory) questionnaire, developed by Mokhtari and Reichard (2002). It consists of 30 items; each rated on a five-point Likert scale ranging from 1 (never) to 5 (always). These items are grouped into three categories: 13 items measuring Global Reading Strategies (GRS), 8 for Problem-Solving Strategies (PSS), and 9 for Support Reading Strategies (SRS). Prior to distribution, the instrument was reviewed for face validity and underwent reliability testing in a pilot study, which yielded a Cronbach's alpha coefficient of 0.89, indicating strong internal consistency.

1. Data Collection

The questionnaire was administered in-person during regularly scheduled class hours to ensure full participation. Prior to distribution, students were briefed on the objective of the study and provided informed consent, in accordance with ethical research practices. Anonymity and confidentiality were guaranteed to reduce bias and encourage honest responses. The researcher supervised the distribution and completion of the instrument to prevent discussion among peers and ensure individual reflection. Each student received both printed instructions and verbal guidance on how to complete the MARSİ questionnaire. The time allotted was approximately 20 minutes. After collection, the researcher examined each form to ensure completeness and accuracy. Incomplete questionnaires were excluded from the analysis. All completed responses were coded numerically for data entry and stored securely in a password-protected database.

2. Data Analysis

The data were analyzed using both descriptive and inferential statistics to identify patterns in students' metacognitive reading strategy use. Descriptive statistics, including mean scores, frequencies, percentages, and standard deviations, were used to summarize students' responses across each MARSİ strategy category: Global Reading Strategies (GRS), Problem-Solving Strategies (PSS), and Support Reading Strategies (SRS).

To measure internal consistency and validate the instrument's reliability, Cronbach's alpha was calculated for each subscale. Values above 0.70 were considered acceptable, with the overall

instrument achieving 0.89, indicating high reliability.

For inferential analysis, Pearson correlation tests were employed to explore the relationship between the three strategy types. This helped determine whether the frequent use of one category of strategies (e.g., PSS) was associated with the use of others (e.g., SRS or GRS). Additionally, one-way ANOVA was used to examine whether there were significant differences in strategy use based on self-reported factors such as reading frequency, gender, or prior training in reading strategies. All analyses were conducted using SPSS Version 25 to ensure precision and replicability.

RESULTS AND DISCUSSION

1. General Competency in Reading Strategies

Out of the 32 participants, 29 students (90.6%) scored in the high category for overall reading strategy use, while 3 students (9.4%) fell into the low category. This suggests a generally high level of metacognitive awareness and strategic engagement with reading tasks among the fourth-semester students at IAIN Bukittinggi.

Table 1. Overall Strategy Use Category

Category	Frequency	Percentage
High (3.5–5.0)	29	90.6%
Medium (2.5–3.4)	0	0.0%
Low (1.0–2.4)	3	9.4%

2. Specific Strategy Use

Table 2. Descriptive Statistics for Strategy Categories

Strategy Category	Mean Score	Std. Deviation
Global Reading Strategies	3.72	0.42
Problem-Solving Strategies	4.01	0.38
Support Reading Strategies	3.48	0.51

3. Correlation Analysis

Table 3. Pearson Correlations Between Strategy Categories

	GRS	PSS	SRS
Global Reading (GRS)	1	0.61**	0.57**
Problem-Solving (PSS)	0.61**	1	0.68**
Support Strategies	0.57**	0.68**	1

Note: $p < .01$ (2-tailed).

4. Anova Analysis

A one-way ANOVA was conducted to examine differences in strategy use based on students' self-reported frequency of reading (daily, weekly, occasionally). The results showed a statistically significant difference in Support Strategy use ($F(2, 29) = 4.32, p < .05$), indicating that students who read more frequently tend to use support strategies more often.

5. Discussion

The high level of strategy use, especially in problem-solving, mirrors the findings of Fitriani et al. (2021) and Amelia & Harida (2023), who reported that EFL learners often rely on these strategies to navigate unfamiliar texts. However, the relatively lower scores in Support Reading Strategies imply the need for enhanced instruction in techniques such as note-taking, highlighting,

and reference usage. Correlation data confirms that metacognitive strategy use is interrelated. Thus, fostering one type of strategy through instruction may positively influence the application of others. The ANOVA results suggest that habitual reading strengthens support strategy use, providing empirical support for integrating extensive reading programs into the curriculum.

CONCLUSION

This study provides evidence that fourth-semester students at IAIN Bukittinggi possess a high level of metacognitive awareness in applying reading strategies, as measured by the Metacognitive Awareness of Reading Strategy Inventory (MARSİ). Most students effectively employed Problem-Solving Strategies (PSS), with somewhat lower yet still significant use of Global Reading Strategies (GRS) and Support Reading Strategies (SRS). The statistical results—including high overall means, significant correlations among strategy types, and notable differences based on reading frequency—support the conclusion that strategic reading behaviors are not only present but interrelated and influenced by reading habits.

The preference for problem-solving strategies suggests that students are well-equipped to manage textual difficulties in real time. However, the less frequent use of support strategies such as note-taking and dictionary uses highlights areas that require pedagogical reinforcement. As prior literature suggests, a balanced application of all three MARSİ strategy types contributes to optimal comprehension and retention.

To strengthen students' reading proficiency, English instructors should consider incorporating explicit training on the use of support and global strategies through classroom modeling, reflective reading logs, and metacognitive prompts. Given the shift toward digital and hybrid learning environments, it is also vital to provide instruction that adapts traditional strategies to digital texts, as recommended by Amelia and Harida (2023).

Future research could examine how sustained metacognitive strategy instruction affects student performance longitudinally, or explore how individual differences—such as motivation, reading anxiety, or digital literacy—impact strategy choice. Expanding this research to include diverse academic levels or institutional contexts would also help in generalizing the findings and informing national curriculum development.

In conclusion, this study highlights the critical role of metacognitive strategy awareness in EFL academic reading and supports the integration of targeted strategy instruction in English education curricula.

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