



## Metacognitive Strategies Employed by English Students in Reading Comprehension

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### Abstract

This research aims to investigate the metacognitive strategies employed by English students at Bengkulu University in reading comprehension. This research was a descriptive quantitative study with the design was survey. The design intends to describe the students' frequencies in employing metacognitive strategies and also the students' awareness of metacognitive strategies appropriateness in reading comprehension. The population of this study was English students in KIP Faculty at Bengkulu University. The sample was 92 of English students overall. The sample was taken by using simple random sampling technique. The data were collected by using MARSJ questionnaire by Mochtari & Reichard. The data obtained from questionnaire was analyzed by using scoring rubric of MARSJ questionnaire and used mean formula to calculate the students' results. The results have revealed that students highly preferred to employ Problem Solving Strategies (3.00) in reading. Global Reading Strategies was the medium strategy preferred by students (2.88). The least strategy preferred by students was Support Reading Strategies (2.82). The result also indicated that English students are frequently employee metacognitive strategies in reading. As conclusion, this study has revealed that students most frequently employed problem-solving strategies (PROB). The study has also found that students have medium awareness of metacognitive strategies appropriateness in reading.

**Keywords:** *Metacognitive Strategies, strategies' frequency use, awareness.*

**Introduction**

In the context of English language learning, there are four main base skills that people need to master to get success in learning the language. Those main base skills are listening, speaking, reading, and writing. Reading is one of the productive skills in English which is used in constructing and understanding the meaning of written or printed texts. Brown (2000) states that reading as a communication skill makes readers excerpt meanings from a printed matter by relating their previous knowledge about the material to the reading text. Gatcho & Hajan (2019) view that reading as making decoding of symbols and characters which will be related to the former knowledge or experiences then decided to achieve a specific level of comprehension from a text in the end.

Reading strategies is one of the issues that play an important role for students to improve their reading skills successfully. Zaree (2007) stated that reading strategies display how readers comprehend a task, how they connected to the contents of the text, and what's the solution if they do not understand the content of the text. Furthermore, Affelbarch, Pearson, & Paris (2008) state that reading strategies as designed, goal-aimed arranges to control and covert readers means decode text, get it words and compose the text's value. The strategies in reading comprehension are such guidelines in supporting readers to find out the comfortable way in constructing their understanding from the text so they can achieve better academic needs.

In the reading context, O'malley and Chamot (1990) have categorized the reading strategies into three subcategories. Those strategies are Cognitive strategies, Metacognitive strategies, and Socio-affective strategies. Cognitive strategies are about employing a particular technique for a specific task such as repeating, reasoning, and analyzing. Dornyei (2005) and Dornyei & Ryan (2015) stated that cognitive styles are linked to a person's approved and repeated styles of conceiving, memorizing, assembling, processing, and picturing information. Metacognitive strategies in reading occur when students involving organizing, planning, and monitoring and related to the learning process. Socio-affective strategies

are related to social-mediating activity and transact with others. According to Oxford (1990), social strategies allowed readers to interact with the target language then the affective is related to the readers' emotional requirements such as confidence.

Wilson & Smetana (2011) have stated metacognitive is a process when readers identify the information in the texts by involving monitoring, understanding, and self-regulating and finally the readers select the available strategies which enrich their comprehension. Furthermore, metacognitive strategies refer to methods that will help students be able to build cognition related to their awareness of the thinking process and common learning then they will learn to take care of their mind by designing, monitoring, and judging knowledge that they have learned (Syafrianti, Suwarno, & Elfrida, 2018). Metacognitive strategies in reading is a process when readers identify the information in the text by allowing their mind to construct the context, control their comprehension of the text, and finally, the readers will solve the problem while reading by using the appropriate strategies which comfort themselves.

In the relation to the Metacognitive strategies, Bria and Mbato (2019) stated that the metacognitive skills will assist students in enhancing their ability in monitoring their comprehension and this will allow students to solve their problems in the learning process creatively. Metacognitive strategies have been indicated to contribute to helping students face their challenges in comprehending a text (Sari, 2016). Mochtari & Reichard (2002) have categorized the strategies into three subcategories which later will be the parameter in this study. Global Reading Strategies which involves various actions to enhance readers' comprehension in the reading activity. Problem-Solving strategy is directed to solve the problem related to the text what readers read. Support Reading strategy which allows readers to take another action while reading to support them in building comprehension.

Several studies about metacognitive strategies in reading skills have been conducted by some researchers. Aziz, Nasir, and Ramazani (2019) have conducted a study on identifying applying metacognitive strategies in comprehending English reading texts. He has revealed that readers who

cover more metacognitive knowledge, awareness, motivation, and attitude will be more successful than those who do not apply it in reading skills. Suharni (2017) has conducted a study on identifying the use of metacognitive reading strategies by EFL learners in reading. She has found that students have gained many positive impacts by employing metacognitive reading strategies such as improving their motivation to learn, their knowledge, and so on. Besides, Deliany & Cahyono (2020) have conducted the study on identifying metacognitive reading strategies awareness and metacognitive reading strategies use of EFL university students across gender. They have revealed that all of the students had high awareness and also indicated high usage of metacognitive reading strategies.

The previous studies above have been addressed in applying metacognitive strategies. Most of studied have revealed that metacognitive strategies are closely related to the learning process and have positive impacts to the students' reading ability. Metacognitive strategies will assist the students to cover their comprehension while reading activity. However, only a few studies researching metacognitive reading strategies employed by students especially in English study program. Therefore, the current study aims to investigate metacognitive strategies employed by English students at University of Bengkulu in reading comprehension.

### **Research Methodology**

This research was a descriptive quantitative study with the design was survey. The population of this research was the fourth-semester students of the English Education Study Program at the University of Bengkulu which consisted of 119 students overall. The samples in collecting data were selected by using a simple random sampling technique. Simple random sampling allows the researchers to take the sample of the population without identified population's strata. The researchers took the samples by using an online website named Sample Size Calculator. The total sample in this study was 92 English students of fourth semester at the KIP faculty of Bengkulu University as the sample of this research.

The researchers had adapted the Metacognitive Awareness of Reading Strategies Inventory (MARSI) questionnaire which was developed by Mochtari and Reichard (2002) as the instrument to gather the data. The questionnaire consisted of 26 items. It observed the students' frequency in applying metacognitive strategies and also their awareness of the appropriateness of these strategies in the reading process. The questionnaire was consisted of three sub-categories of metacognitive reading strategies. Those adapted items consisted of 11 items for Global Reading Strategies (GLOB), 7 items for Problem Solving strategies (PROB), and 8 items for Support Reading strategies (SUP).

In analyzing the percentage of students' questionnaire, the students' scores obtained for each strategy were transferred to the scoring rubric provided from the MARSI questionnaire. The scores in this analysis were calculated

$$\bar{x} = \frac{\sum xi}{n}$$

using the formula below:

Note:

X = mean

$\sum xi$  = total scores

n = number of items

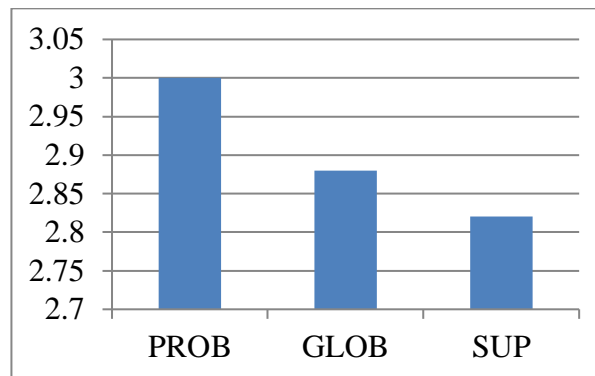
The students' score averages then were classified into three levels of awareness according to Mochtari and Reichard (2007). The results of the interpretation then were used to examine the students' metacognitive reading strategies use and their metacognitive reading strategies awareness. The table below show the level of awareness based on the students' final scores.

Average Score	Level of Awareness
$\leq 2.4$	Low
2.5 – 3.4	Medium
$\geq 3.5$	High

## Findings and Discussion

### Findings

Metacognitive strategies are most frequently employed by English students at the University of Bengkulu in reading comprehension is problem-solving strategies (PROB). Then it is followed by global reading strategies (GLOB) and the least strategies are support reading strategies (SUP). The description of the result is presented in the table below:



**Chart 1: Students' preference in employing the metacognitive strategies**

The chart shows the total mean scores of students' preferences in employing the three sub-categories of metacognitive reading strategies. Consequently, this result shows the most supportive sub-categories of metacognitive strategies employed by students in reading comprehension. Based on the data raised from students' questionnaire results, the total mean score for all sub-categories of metacognitive strategies was 31.685 for Global reading strategies, Problem-solving strategies were 21.022, and Support reading strategies were 22.598. The final score after divided to total items of each sub-category of metacognitive strategies was 2.88 points for PROB, 3.00 for GLOB, and the last 2.82 for SUP.

Based on the explanation above, it can be concluded that metacognitive strategies which are frequently employed by English students at the University of Bengkulu in reading comprehension were problem-solving strategies (3.00). This indicated that students have shown high awareness of problem solving strategies employment while reading. Further, students have shown medium awareness of global reading strategies

employment (2.88) while facing problems during reading. The least strategy which the English students raised low awareness in employing metacognitive strategies is support reading strategies (2.82).

The detailed results of the mean score of each sub-category in metacognitive strategies are presented in tables below.

1. *Students' preferences in employing Global Reading Strategies (GLOB) to deal with their reading comprehension*

**Table 1: Frequency of global reading strategies (GLOB) usage**

<b>Global Reading Strategies (GLOB)</b>	<b>Mean</b>
I think about what I know to help me understand what I'm reading	<b>3,07</b>
I check to see if my guesses about the text are right or wrong.	<b>3,02</b>
I try to guess what the text is about when reading.	<b>3,01</b>
I preview the text to see what it's about before reading it.	<b>3,01</b>
I decide what to read closely and what to ignore.	<b>2,97</b>
I have a purpose in mind when I read	<b>2,97</b>
I use typographical aids like boldface type and italics to identify key information.	<b>2,80</b>
I think about whether the content of the text fits my purpose.	<b>2,79</b>
I use context clues to help me better understand what I'm reading.	<b>2,78</b>
I use tables, figures, and pictures in text to increase my understanding.	<b>2,73</b>
I critically analyze and evaluate the information presented in the text.	<b>2,48</b>

The table above describes the employment of each strategy in global reading strategies by English students. Due to the total mean of students' preferences of each statement in global reading strategies in the table above, it shows that "I think about what I know to help me understand what I'm reading" was highly employed by students. While the least preferred strategies in global reading strategies was "I critically analyze and evaluate the information presented in the text".

2. *Students' preferences in employing Problem Solving Strategies (PROB) to deal with their reading comprehension*

**Table 2: Frequency of problem solving strategies (PROB) usage**

<b>Problem Solving Strategies (PROB)</b>	Mean
I try to guess the meaning of unknown words or phrases.	<b>3,21</b>
I read slowly but carefully to be sure I understand what I'm reading.	<b>3,10</b>
When text becomes difficult, I begin to pay closer attention to what I'm reading.	<b>3,09</b>
When text becomes difficult, I reread to increase my understanding.	<b>3,05</b>
I adjust my reading speed according to what I'm reading.	<b>3,04</b>
I stop from time to time to think about what I'm reading.	<b>2,75</b>
I try to picture or visualize information to help me remember what I'm reading.	<b>2,75</b>

The table above describes the employment of each strategy in problem solving strategies by English students. Due to the total mean of students' preferences of each statement in problem solving strategies in the table above, it shows that "I try to guess the meaning of unknown words or phrases" was highly employed by students. While the least preferred strategies in global reading strategies were "I try to picture or visualize information to help me remember what I'm reading" and also "I stop from time to time to think about what I'm reading".

### 3. Students' preferences in employing Support Reading Strategies (SUP) to deal with their reading comprehension

**Table 3: Frequency of support reading strategies (SUP) usage**

<b>Support Reading Strategies (SUP)</b>	Mean
I use reference materials such as dictionaries to help me understand what I'm reading.	<b>3,07</b>
I underline or circle information in the text to help me remember it.	<b>2,97</b>
I take notes while reading to help me understand what I'm reading.	<b>2,94</b>
I paraphrase (restate ideas in my own words) to better understand what I'm reading.	<b>2,92</b>
When text becomes difficult, I read aloud to help me understand what I'm reading.	<b>2,78</b>
I go back and forth in the text to find relationships among ideas in it.	<b>2,68</b>



I discuss my reading with others to check my understanding.	<b>2,63</b>
I write summaries to reflect on key ideas in the text.	<b>2,57</b>

The table above describes the employment of each strategy in support reading strategies by English students. Due to the total mean of students' preferences of each statement in support reading strategies in the table above, it shows that "I use reference materials such as dictionaries to help me understand what I'm reading" was highly employed by students. While the least preferred strategies in global reading strategies was "I write summaries to reflect on key ideas in the text".

Based on the table results above, it has shown that almost all metacognitive strategies were employed at a medium level by English students. Students have gotten a medium usage score for a total of 25 from 26 statements of the overall metacognitive reading strategies. There was only one statement that raised a low usage score in metacognitive reading strategies. Further, there were no statements of the metacognitive strategies which are employed in high usage by English students.

Due to the total mean of students' preferences of each statement in metacognitive reading strategies, it shows that students highly employed statement strategy from problem-solving categories. The strategy is "I try to guess the meaning of unknown words or phrases". While the least preferred strategy by students was in global reading categories. The strategy is "I critically analyze and evaluate the information presented in the text".

Further, the English Students' awareness of metacognitive strategies appropriateness in reading comprehension according to the result of students' questionnaire is in medium level. The total of students who discover high awareness of metacognitive strategies appropriateness in reading comprehension was 3 students. Further, the total of students who discover medium awareness of metacognitive strategies appropriateness in reading comprehension was 80 students. On other hand, those who discover low awareness of metacognitive strategies appropriateness in reading comprehension were 9 students. The description of the result will be explained as follow:

**Table 4: Students' awareness of metacognitive strategies**

Number of Students	Classification	Overall Score	Percentage
80 students	Medium	2.5 – 3.4	<b>86.95%</b>
9 students	Low	1.9 - 2.4	<b>9.79%</b>
3 students	High	3.5 – 3.8	<b>3.26%</b>

Table above shows the total of English students' awareness of metacognitive strategies appropriateness in reading comprehension. Furthermore, the table above shows those 9 students have a low score in metacognitive strategies usage. Next, 80 students have a medium score in using metacognitive strategies. The rest of the students or 3 of them have a high score in using metacognitive strategies.

Due to the table, it can be interpreted that from a total of 92 students, among 9.79% or 9 students have low awareness of metacognitive strategies appropriateness. The most of students with a total of 86.95% or 80 students have medium awareness of metacognitive strategies appropriateness. Further, about 3.26% or 3 students have a high awareness of metacognitive strategies awareness in reading comprehension.

## Discussion

The final data have been collected regarding English students' at KIP Faculty of Bengkulu University frequency in employing metacognitive strategies in reading and also their awareness of metacognitive strategies appropriateness. The data have shown that the students mostly employed Problem Solving Strategies (PROB) in dealing with their reading comprehension. Further, the Global Reading Strategies (GLOB) was in moderate usage and Support Reading Strategies (SUP) was in low usage. The results also have revealed that English students' awareness of metacognitive strategies appropriateness in reading is at a moderate level according to their metacognitive scores.

The questionnaire result displays that Problem Solving Strategies (PROB) as the most preferred strategies employed by English students with the final mean score was 3.00. This result is in line with research conducted

by Aziz, Nasir & Ramazani (2019) and Suharni (2017) which revealed that students most frequently used problem-solving strategies while reading. The students tend to find out a way to deal with their comprehensions problems while reading by employing problem-solving strategies frequently.

Furthermore, the findings of metacognitive strategies which are frequently employed by English students regarding their reading comprehension were similar to the study from Hamiddin and Saukah (2020). Based on the result, from each strategy of the overall three sub-categories of metacognitive strategies in reading, the students used to employ the valuable strategies which will help them in solving the problems while reading. It is confirmed by evaluating their scores in which they will have high usage on a certain strategy that they used to employ. Thus, it is in line with the students' behavior in employing the reading strategies according to their awareness while they are reading texts (Hamiddin & Saukah, 2020).

In the terms of sub-categories in metacognitive reading strategies, the findings have found that students frequently employ three strategies of problem-solving strategies in a high preferences usage. These findings coincide with the findings in Deliany and Cahyono (2020), they have found that problem-solving strategies as the most frequent sub-categories employed by students in metacognitive reading strategies. Moreover, this present study has found that problem-solving strategies as the most frequently employed by students. The strategies were guessing the meaning of unknown words or phrases in the texts, reading slowly but carefully to make a clear understanding of the texts, and paying closer attention to the contexts when it is difficult to be analyzed.

Regardless, both studies conducted by Aziz, Nasir & Ramazani (2019) and Suharni (2017) have found that global reading strategies were in the lowest position after support reading strategies used by students in reading texts. On the other hand, this present study has found that students' preferences indicated to use Global Reading Strategies (GLOB) rather than Support Reading Strategies (SUP) in reading texts. Thus, this result's study did not support the result from both previous studies in the context of frequency in applying metacognitive strategies while reading.

Furthermore, the findings of this study have shown that there were no strategies that are employed in high usage by students. It is contradictory to those three previous studies conducted by Deliany and Cahyono (2020), Aziz, Nasir & Ramazani (2019) and Suharni (2017) on the same topic of metacognitive strategies employment and awareness. Those studies have revealed that most the students have applied metacognitive strategies in high and medium usage rather than in low usage. Further, this present study has revealed that all students employ metacognitive strategies in medium and low usage levels. However, based on the findings there were no students who discover metacognitive strategies at a high usage level.

Due to the result of this present study, the researchers have found that the students employed metacognitive reading strategies at a moderate usage level. The findings have revealed that the students raised the highest percentage in medium usage in employing metacognitive strategies while reading. Further, it also has revealed that students raised a lower percentage of high usage rather than low usage in employing metacognitive reading strategies. Due to the percentage, it is shown that English students in the 4<sup>th</sup> semester have medium awareness of metacognitive strategies appropriateness in reading. This finding disagrees with the findings of prior studies on the focus of the most used metacognitive reading strategies (Deliany & Cahyono, 2020; Aziz, Nasir, & Ramazani, 2019; Suharni, 2017).

## **Conclusions and Suggestions**

### **Conclusions**

This study has revealed that students most frequently employed problem-solving strategies (PROB) as the valuable category of metacognitive reading strategies. The next strategies that are frequently employed are global reading strategies (GLOB) and followed by support reading strategies (SUP). Students mostly have applied metacognitive reading strategies in medium usage, and followed by students who applied the strategies in low and high usage. It can be concluded that the students

have medium awareness of metacognitive strategies appropriateness in reading.

### **Suggestion**

According to the results of this research, therefore the researchers suggest that the English students employ metacognitive reading strategies as their reading strategies preferences in comprehending the texts. Furthermore, the students need to analyze their reading ability to synchronize with the valuable strategies that will help them in solving problems while reading texts. Further, the researchers suggest that the further researchers expand the study in different students' contexts such as gender, students of other departments, and so on. Besides, the further researchers should be able to analyze the problem in detail about the employment of metacognitive strategies such as the reason of students' preferences in applying one of the strategies. The next study can use the MARS questionnaire by Mochtari & Reichard and also apply other instruments for better results of the study.

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