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EFL University Students' Metacognitive Awareness of Reading Strategy and Its Correlation with Their Reading Comprehension

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ABSTRACT

Metacognitive awareness of reading strategy has a tremendous impact on the educational process, especially in acquiring a second language. It is concerned with not only what they suggest about how students organize their interactions with the context, but also with how they might employ the strategies that are still relevant to reading comprehension effectiveness. However, the EFL learners still lack using metacognitive awareness of reading strategies significantly because of their unknowing and inadequate understanding of what reading strategies to use, and how and when to use them appropriately. Hence, the present study is attempted to locate the relationship between EFL learners' metacognitive awareness of reading strategy and reading comprehension. A quantitative study, with 60 EFL students as participants, was conducted by using a questionnaire, and reading comprehension score to discover the level of EFL students' Metacognitive Awareness of Reading Strategy. Those are the Metacognitive Awareness of Reading Strategy Inventory - revised (MARSI-R) and the Test English Proficiency (TEP) to discover the level of EFL students' metacognitive awareness. The result of this study showed that 49 participants (mean 3.5 – >3.5), were categorized as high group levels, and 11 participants (mean 2.5 – 3.4), were categorized as moderate group levels. This research also revealed that the most strategies used by EFL learners found using PRS (Problem-solving strategies) M = 3.99; GRS (Global reading strategies) M = 3.98; and, SRS (Support reading strategies) M = 3.65. The result of the Spearman Rho Coefficient showed that there is no correlation between EFL learners' metacognitive awareness of reading strategy and reading comprehension (**ρ** value = .986).

I. Introduction

In acquiring a second language, reading is a pivotal skill not only in college areas but also in all aspects of education grades for achieving success either in academics or in life beyond (Daguay-James & Bulusan, 2020; Suyitno, 2017; Gemma, 2019). Learners who have a habit to read a lot can intimately gain any information, intelligence, and insight in their academic lives, significantly have different academic attitudes from others who didn't, and effortlessly solve kind of the problem whether in school or outside of the school (Suyitno, 2017). So, students who have the habit of reading can solve the problem easily rather than those who do not. Having the ability to read well can be the opportunity for personal fulfillment and work satisfaction. Besides, reading can help students to comprehend the material that contains much information and knowledge. English Foreign Language (EFL) learners need to understand and perform a great deal of

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reading tasks with good comprehension to their better performance on reading comprehension (Arabmofrad et al., 2021).

Reading has already been focused on the most of research studies in recent times (Carine et al., 2016). Reading, as described by Oxford Dictionary (2015), is considering and comprehending the meaning, in the form of the written or printed form, by mentally deciphering the characters or symbols that comprise the text. Reading is a kind of development to interpret the direct meaning and comprehend its indirect ideas (Arabmofrad et al., 2021). Consequently, reading is one of the basic skills of language learning that should be mastered by EFL students because it covers many things in literary context and develop their thinking process to comprehend the information from the whole text.

Reading is an ability that assists students to comprehend the context of the text they are reading. A good reader can anticipate what will be discussed in the text, connect the material in the text to prior knowledge, ask questions while reading, monitor their understanding of the text, and summarize what they have read. Moreover, it is a multi-step process that requires readers to interact with the material to create a mental model of the text or a contextual model (Okkinga et al., 2018). As described by Kintsch and Rawson (2005) in Clarke et al., (2013), there is a Construction-Integration Model that conducts some skills and processes of reading successfully. It can be developed by the readers when reading a text and automatically can create a personal representation of its meaning from the text as well as a common understanding of the language and the topic. The process convoluted in interpreting the text is stated in terms of three levels which are referred to as the 'text-base', they are: [a] ‘Linguistic’ level which describes the readers to recognize and process individual words and their meaning. [b] ‘Microstructure’ level which describes the readers goes beyond word isolation by recognizing or processing the meaning of the general part of the text. [c] ‘Macrostructure’ level which describes the readers to recognize and process the themes, topics, and genre information of the text.

Henceforth, reading comprehension depends on several cognitive aspects and linguistic processes (Muijselaar et al., 2017). This statement is also in line with Elleman and Oslund (2019) and they briefly further explain about four components of reading comprehension, consist of:

1) Inference Generation
   Inference generation is the ability to accommodate and gain the information inside or across texts using prior knowledge which cannot be stated in the explicit information.
2) Background Knowledge
   Background Knowledge is a reader’s understanding of the information of specific concepts, situations, and problems which involved the words of the text. A reader’s background knowledge is decisive in the development of a logical representation of a text.
3) Vocabulary
   Vocabulary is a bunch of words and phrases usually alphabetically arranged and explained that learners are trying to learn. Also, it is well-known as a powerful predictor of reading comprehension throughout childhood and adolescence.
4) Comprehension Monitoring
   Comprehension monitoring is a kind of monitoring the metacognitive intelligence, in the form of a metacognitive task in which readers' ability to reflect on their knowledge of written material is referred to as this. (Zargar et al., 2020) stated that the processing that involves evaluation and management of understanding during reading is frequently referred to as metacognitive intelligence.

Reading strategy is one of the approaches for readers to understand a text or passage, and this may help the readers easily to construct their thought based on the points of the passage. Indeed, reading strategy is a broad phrase that refers to the planned and explicit attitudes that assist readers to understand what they are reading (Küçükoğlu, 2013). Furthermore, the existence of a reading strategy can help students to able to comprehend a reading passage by considering that reading is a complex activity that requires a very high concentration and solving their problems on difficulties in reading a text. Magogwe (2013) also mentioned

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that the concept of reading strategy obtained from Oxford (1990) as the distinction of language learning strategies such as *Cognitive Strategies* (making and facilitating the learning more efficiently and directly by receiving messages in the target language to achieve a specific learning goal), *Metacognitive Strategies* (planning and monitoring the students' learning to help learners become more self-sufficient in their learning by allowing them to control the process), *Memory*, *Compensation, and Affective Strategies* (maintaining learners' feeling related to language learning such as confidence, motivation, and attitudes), and *Social Strategies* (giving a motivation the learners to keep studying and dealing with the anxiety when facing or learning a new language). Moreover, there are three categories of reading strategies proposed by Mokhtari & Sheorey (2002):

1) Global reading strategies (GRS) are those techniques that have been intended and carefully planned, through which the learners monitor or manage the reading. For instance: Consider the text's purpose, length, and organization, as well as the use of typographical aids, tables, and figures.
2) Problem-solving strategies (PRS) are other categories of reading strategies and methods used by readers during direct working with text are measures and processes. These methods are focused, concentrated strategies utilized in problems with comprehension, the speed at which materials become challenging or simple, the meaning of unknown words, and text re-reading of the text are kind of examples.
3) Support strategies (SRS) are the most basic mechanism for assisting readers in comprehending information such as the use of a textbook, how to take notes, and how to underline or highlight the textual information of the text. These strategies are used by learners to conceive, compose, and retrieve the meaning of a text.

Hereafter, current reading instruction focuses on assisting readers in learning and employing effective reading comprehension skills. By assisting readers' efforts in decoding a text, grasping words, and constructing meaning for the text, the effective use of reading techniques can help them monitor their comprehension process and modify the way they read (Miyamoto et al., 2019). Also, according to studies, metacognitive strategies as contrasted to other types of learning strategies, appear to play an important role in the language learning process (Daguay-James & Bulusan, 2020). Accordingly, numerous strategies and techniques for improving students' reading comprehension skills have been developed, one of which is the metacognitive reading strategy.

Metacognition is a term that describes the process of gaining knowledge and learning how to learn (Amini et al., 2020) and it is frequently defined as a person's thinking processes or anything related to their thinking. Then, metacognition refers to knowing our knowledge and reflecting the ability on our understanding of the text when reading (Clarke et al., 2013). Wilson & Conyers (2016) define that metacognition associates thinking about learners' thinking, or cognition, with having a purpose of strengthening the learning process. Students who use metacognition when he/she reads an unfamiliar word, and decide to use two strategies which she already learned to recall a word's meaning (perhaps by guessing against the glossary in the textbook) and breaking it into components, and looking for contextual clues. Although metacognition may be roughly described as the awareness of one's cognitive process, it is more specifically defined as the awareness of one's cognitive process, and there is still a theoretical distinction between metacognition and cognitive aspects.

Metacognition enables learners to generate meaning from text information as part of reading comprehension. Students should examine their thought processes, recognize reading strategies while reading, and regulate their reading habits. Throughout this process, learners can have knowledge that includes cognitive tasks, goals, actions, and experiences while interacting with other people (Yusuf & Fitrisia, 2015). However, metacognition is still often neglected at some schools even though it is a very crucial component of 21st-century education that teaches students *how* to learn (Donna Wilson & Marcus Conyers, 2016). Thus, Metacognition can be used in the teaching and learning process to assist students to progress more quickly (Kung & Aziz, 2020). Metacognitive strategies are actions that go beyond cognitive equipment and allow students to choose their appropriate learning methods to meet their learning objectives. Having adopted Zhang (2017) framework, Purpura (1997) points out that metacognitive strategies are "a

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set of conscious or unconscious mental or behavioral activities which are directly or indirectly related to some specific stage of the overall process of language acquisition, use or testing." (p.6). According to Mokhtari & Reichard (2002), the metacognitive reading strategy of awareness is focused with how students structure their connections with the context, as well as how they could apply the strategies that are still relevant to reading comprehension efficiency. Moreover, a metacognitive reading strategy can help students develop their reading comprehension in the field of second or foreign language acquisition. (Ahmadi et al., 2013).

Several research studies have examined the relationship between students' Metacognitive Awareness of Reading Strategy and their reading comprehension. Firstly, Rastegar et al., (2017) conducted a research study about finding the link between Metacognitive reading strategies use and reading comprehension achievement. They used 120 Iranian EFL students and only used 2 instruments; they were a survey of reading strategies (SORS) by Mokhtari and Sheorey (2002) and a TOEFL reading comprehension test. Thereafter, a positive correlation between the use of overall metacognitive reading strategies and reading comprehension was found. In addition, the participants also improve their better learning outcomes in reading comprehension. Secondly, Wudneh (2018) researched to find out the level of awareness of Metacognitive reading strategies among Ethiopian EFL university learners during their first-year education. This study used 94 EFL learners who participated, and used 2 instruments of questionnaires; the Metacognitive Awareness of Reading Strategies Inventory (MARSI) by Mokhtari & Reichard (2002) and a modified reading comprehension test from the www.readtheory.org website. The result showed that the level of metacognitive reading strategy users was on the medium level or it can be said that it was almost near to the lower limit. Then, another finding has been that metacognitive reading strategies had a weak link with reading comprehension achievement, due to students' lack of knowledge about how to manage and evaluate their reading comprehension. Thirdly, the research by Meniado, (2016) revealed the number of participants was about 60 participants were randomly selected from different sections. However, only 43 completed the three sets of questionnaires of a survey of reading strategies (SORS) by Mokhtari and Sheorey (2002). Then, he discovered that there is no correlation between metacognitive reading strategies and reading comprehension.

Although students' metacognitive awareness of reading strategy and reading comprehension have been addressed by different researchers across the globe, the relationship between students' metacognitive awareness of reading strategy and reading comprehension needs further explanation. There has been a subject of debate that is showing inconsistencies found in the results. Moreover, only a few research studies have directly focused on English undergraduate learners in Indonesia. As noted above, it is much more likely an interesting area to be studied by the researcher. Therefore, it is essential to find the relationship between students' metacognitive awareness of reading strategy and its correlation with their reading comprehension, especially among EFL undergraduate students at the university level in the Indonesian context.

Moreover, with general information that has been explained so far by the researcher, this research has the purpose of explaining more details about: (1) What are students' levels of metacognitive awareness of reading strategies? (2) Is there any correlation between EFL students' metacognitive awareness of reading strategy and their reading comprehension? Therefore, this present study is aimed to discover the level of students' metacognitive awareness and to find out whether students' metacognitive awareness of reading strategy and their reading comprehension is related or not.

II. Method

Regarding the research questions and purpose of this study, a correlational study was used by the researcher as the research design to assist the researcher in this study. As stated by Fraenkel et al. (2012), the correlational study is primarily concerned with the possibility of correlations between only two or more variables, with no attempt to convince them. Also, a correlational design is a study to guide the researcher's

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thought process the research. Furthermore, a correlational study is a study that emphasizes finding empirical evidence on the relationship between two variables of the data (Creswell, 2012). Hence, the researcher uses this correlational study to find out the relationship between EFL university students' metacognitive awareness of reading strategy and their reading comprehension scores. The purpose of this study is to determine the correlation between two variables, they are EFL students' metacognitive awareness of reading strategy and their reading comprehension.

A. Population and Sample

According to Fraenkel et al. (2012), the term population, as it is typically used in research, relates to all members of a given group. It is the group that the researcher is interested in or to whom the researcher wants to generalize the findings of a study. Also, in a quantitative research design, there is a requirement while determining the number of samples in a correlational study. Fraenkel et al. (2012) stated when conducting a correlational study, the researcher requires a minimum sample consisting of 50 participants to establish a relationship of variables. This study involved 60 participants majoring in English Education in one of the State universities in Surabaya who fulfilled the online questionnaire.

For choosing the sample from a population, the participants must have enrolled in all reading classes such as literal, interpretive, critical, and extensive reading classes. Based on this requirement, the EFL learners who can be the participants in this study are the fifth semester *(Junior)* and the seventh semester *(Senior)* of college students because the researcher believes *Junior* and *Senior* students have more experience in reading than the lower ones. Hence, this study considered purposive sampling because the participants were taken from 2 levels of EFL, consisting of 30 students of EFL *Junior* and 30 students of EFL *Senior*.

B. Research instrument

An instrument is a tool or equipment that the researcher can use to collect data, such as a pencil and paper test, a questionnaire, or a rating scale (Fraenkel et al., 2012). Hence, this study used two instruments, namely a Metacognitive Awareness of Reading Strategy (MARSI-R) questionnaire and their Test Proficiency Level (TEP) scores to measure students' reading comprehension. The questionnaire is an instrument to answer the first and second research questions that were adapted from the existed questionnaire from Mokhtari et al., (2018).

For gathering data for this study and answering research question number one, the researcher used an instrument of a questionnaire called a Metacognitive Awareness of Reading Strategy Inventory - revised (MARSI-R), and it was adopted from Mokhtari et al., (2018). The questionnaire was used to investigate the students' metacognitive awareness of reading strategy when learners read the texts. The three parts of MARSI-R, such as *Global reading strategies, Problem-solving strategies,* and *Support reading strategies*, contain 5 items for each category. There were 15 items in total on the questionnaire and the participants were required to answer each item on a five-point Likert scale. Those statements are (1) I have never heard this strategy before; (2) I have never heard this strategy before, but I don't know what it means; (3) I have heard of this strategy, and I think I know what it means; (4) I know this strategy, and I can explain how and when to use it; (5) I know this strategy quite well, and I often use it when I read. Furthermore, Mokhtari & Reichard (2002) defines that in examining individual and group reading strategy usage on the MARSI, which ranges from 1 to 5, three levels of usage were identified, as shown in the table below which have been suggested by Oxford for language learning strategy usage:

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Table 1. Learning Strategy Usage

Category	Mean
High	3.5 - >3.5
Moderate	2.5 - 3.4
Low	2.4 - <2.4

Intending to answer the second research question which is about the correlation between metacognitive awareness of reading strategy and reading comprehension, data about EFL students' reading comprehension scores were needed. Thus, for getting the data, the researcher requested the participants to take screenshots of their TEP (Test English Proficiency) score, only in the reading section. The screenshot of this score was uploaded through *Google form* as well along with the MARSI-R questionnaire. The TEP (Test English Proficiency) test is also similar to the TOEFL (Test of English as a Foreign Language) test which is composed of three sections such as reading, structure, and listening. The MARSI-R questionnaire and TEP score were distributed in one *Google form* and delivered through the *WhatsApp Group*.

The TEP's scoring system generated the existing data from the participants' TEP scores. Moreover, the researcher categorized the range score of reading comprehension TEP score by Educational Testing Service (2017) in the United States.

Table 2. CEFR Category of Reading Comprehension TEP Score

Level	Range Score
C1	63 – 67
B2	56 – 62
B1	48 – 55
A2	31 – 47

C. Data Collection Procedure

Data collection procedures are the process of collecting information on the variables of the study. Procedure for collecting data are: (1) distributing the questionnaire, and (2) asking about students' TEP scores, especially only in the reading comprehension section. There are some ways for the researcher to collect the data before delivering the questionnaire. Then, the questionnaire that the researcher used was still used in the English language to all participants through google forms. The google form itself must be filled out by the participant which consists of:

1. The instruction of the questionnaire of MARSI-R is highly required to fill;
2. Identity of each participant (the raw data, such as the identity of a participant, that researcher received will be kept confidential);
3. 15 questions of MARSI-R;
4. Screen capture the students' TEP score, especially only just in the reading section, by adding on section image.

The researcher needs help from one of the students in each class to distribute the link to the MARSI-R questionnaire and collect their TEP scores through the *WhatsApp Group*. The google forms that have been distributed to all participants have been collected after 1 week to get the data as the researcher expected. Therefore, all of these data have been analyzed and calculated by the researcher to obtain the average scores.

D. The technique of Data Analysis

For the analysis, the consequence of MARSI-R was analyzed by using descriptive statistics through SPSS 25. The result of the Likert scale of the questionnaire of total MARSI-R participants' scores was determined and provided in the form of the mean score (M) and standard deviation (σ). Before

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administering the questionnaire, the MARSI-R questionnaire that was used by the researcher was considered 'reliable' because the researcher adopted the original questionnaire and it was already been used by many researchers around the world. The internal consistency reliability MARSI-R of the three documented subscales (global reading =.814, problem-solving =.618, and support reading strategies =.840) ranged from.89 to.93, and score reliability for the total sample was.93, indicating that the three documented subscales (global reading, problem-solving, and support reading strategies) are reliable measures of metacognitive awareness of reading strategies, it was tested by using Cronbach's alpha coefficient. According to Cohen et al., (2007), the questionnaire was considered reliable if the level of Cronbach's Alpha is .70 or above. In conclusion, this questionnaire was reliable because the level of Cronbach's Alpha was.93. Also, Mokhtari et al., (2018) already checked the validity of MARSI-R using confirmatory factor analysis (CFA).

Before testing the correlation between Metacognitive Awareness of Reading Strategy and Reading Comprehension, the researcher conducted a normality test to check the normality of those data distributions. From One Kolmogorov-Smirnov test, the result showed that the data distribution was **ρ** = .000 which indicated the data were not distributed normally. As stated by Creswell (2012, p. 188-189), if the result of **ρ**-output is lower than .05 it should be used Spearman rho coefficient correlation. Therefore, the researcher decided to use Spearman Rho Coefficient to analyze the correlation between the variables for answering the second research question.

Besides the normality test, the linearity test was also conducted before doing correlation. In measuring the data linearity, a linearity test was applied. It can be measured whether EFL students' metacognitive awareness of reading strategies questionnaire score and reading comprehension test score data was linear or not. Based on table 4, the result of the linearity test between EFL students' metacognitive awareness of reading strategies questionnaire test showed that the F values of 1.414 and the significant value (Sig.) levels of deviation from linearity score were .174 respectively which exceeded .05. The distribution showed that the significant value was higher than .05, therefore, it could be concluded that the data were linear.

Then, the researcher needs to know the degree of the correlation coefficient to determine the strength of the correlation. The strength of the coefficient correlation might be used to interpret the results. The correlation reveals whether there is a positive or negative correlation between paired scores, as well as the strength of that association. The correlation will show if the **ρ**-value < .05, however, if there is no correlation between two variables the **ρ**-value will show > .05. Furthermore, the researcher has tested the hypotheses to know whether there is a correlation coefficient score or not. To test the hypotheses, there are some criteria from Creswell (2012, p 188-189). The following are:

- There will be a correlation if the *p*-value is lower than .05, H_0 is rejected and H_a is accepted.
- There will be no correlation if the *p*-value is higher than .05, H_0 is accepted and H_a is rejected.

According to Cohen et al., (2020), there are 4 levels of degree of correlation coefficient that will be shown below:

Table 3. Degree of Correlation Coefficient by Cohen et al., (2020)

Correlation Value Ranging	Degree of Correlation Coefficient
0.20 – 0.35	Low
0.35 – 0.65	Moderate
0.65 – 0.85	High
>0.85	Very high

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III. Results and Discussion

EFL Students' level of Metacognitive Awareness of Reading Strategy

There are 15 items in the MARSI-R questionnaire that have been answered by 60 Senior and Junior EFL students. The table below already presents the EFL students' awareness of the reading strategies and it is categorized as *High, Moderate*, or *Low* levels (see table 1) which indicates their level of strategy usage. The result will be explained further.

Table 4. Total Mean score of Metacognitive Awareness of Reading Strategy

Category	Mean	Frequency (N)
High	3.5 - >3.5	49
Moderate	2.5 - 3.4	11
Low	2.4 - <2.4	0
Total	**232.47**	**60**

As explained by Mokhtari & Reichard (2002), they already clarify about three levels of learning strategy usage, originally by Oxford. Certain students are classified as high-level groups when the MARSI score was higher, and vice versa, after calculating into Mean score and Standard deviation score. Accordingly, the sixty students of EFL junior and senior were classified into three different groups, if the students have a mean score of 3.5 – >3.5, then, it will be categorized as a high level of learning strategy use. However, if the students have a mean score of 2.4 – <2.4, then, it will be categorized as a low level of learning strategy use. Also, the students who got a mean score between 2.5 – 3.4 can be considered in a moderate level of learning strategy use.

Afterward, the researcher measures the frequency of the learning strategy used to discover the level of EFL students' metacognitive awareness of the reading strategy. It can be gleaned from Table 3 that 49 participants or 82% obtained a mean score between 3.5 – >3.5, categorized as high group levels, 11 participants or 18% obtained a mean score between 2.5 – 3.4, categorized as moderate group levels, and 0 participants or 0% was found for having low reading strategy level. As a whole, the mean level of EFL learners' metacognitive awareness of reading strategies is 232.47.

The high group levels of EFL students can recognize and process individual words and their meaning such as guessing the meaning of the text. This found similar to Wudneh (2018) who stated that, in general, participants have the highest mean value (3.32) by indicating from the item "*checking to see whether their guesses about the text are right or wrong"* was used mainly by these participants to achieve their reading comprehension successfully. On the one hand, the moderate group levels of EFL students go beyond word isolation by recognizing or processing the meaning of the general part of the text. Also, Deliany & Cahyono, (2020) revealed that all participants in their study possessed moderate to high awareness of metacognitive reading strategies (mean scores were 3.4 – 4.2). Based on the result found, there were only high and moderate levels which were also in line with Deliany & Cahyono's (2020) study, thus, it can be asserted that all participants of the EFL students in that university are strategic readers who employed metacognitive awareness of reading strategies to increase their reading comprehension and overcome the problems faced during the process of reading an English text.

The metacognitive reading strategies below were grouped according to sub-categories because the researcher want to know which strategies that mostly used by the participants. According to MARSI – R, revealed by Mokhtari et al., (2018), there were 3 categories of metacognitive awareness of reading strategy that are used by EFL learners which are GRS (*Global reading strategies)* PRS *(Problem-solving strategies)*, and SRS *(Support reading strategies*).

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Table 5. Descriptive Statistic of MARSI-R

No	Strategies	Mean	Std. Deviation
1	GRS	3.98	0.92
2	PRS	3.99	0.97
3	SRS	3.65	1.02

As a result of the data, collected from the Metacognitive Awareness of Reading Strategy – Inventory (MARSI-R) questionnaire, EFL students were most using strategies namely PRS (Problem-solving strategies) with a 3.99 mean score showed. Next up, the GRS (Global reading strategies) was found as the second-order strategy that was used by EFL students with a 3.98 mean score presented, and SRS (Support reading strategies) becomes the fewest reading strategy with a 3.65 mean score. All strategies found can be classified into the high group category because mean scores were up to 3.5.

Besides, this result was also in line with Meniado, (2016). They revealed that the subcategories of metacognitive awareness that have been used by those participants are also in line with this study which is Problem Solving Strategies (PROB) / (PRS) with a mean of 3.97. This demonstrates that Problem-Solving Strategies are frequently and effectively used by learners of various levels and in various circumstances because they find strategies that help them unlock the barriers (problems) in comprehending a text.

The result of this study reveals that all participants are considered to have a high and moderate level in using Metacognitive Awareness of Reading Strategy. According to a research study by Daguay-James & Bulusan, (2020), EFL students can use some appropriate strategies during the process of reading any texts, from pre-reading to post-reading, to comprehend and understand the written texts well, rather than low-proficient readers. Furthermore, it is also in tune with (Maryam et al., 2019) who stated that: 1) readers, who are more Metacognitive aware may know what to do when they are having difficulty learning, for instance: they may need to re-read the material when it becomes so difficult; 2) readers which employ metacognitive strategies can identify what they need to do; 3) readers can construct, monitor, and evaluate the meaning from the text by performing better in the reading comprehension rather than the low readers who did not use Metacognitive strategies. Such of activity that makes them become high and moderate levels' aware of using Metacognitive strategy are:

a) Item 2 *"previewing the text to see what it is about before reading it"* was chosen by 32 respondents (mean scores between 3.40 – 4.73). They do an overview before reading and have
b) Item 4 *"using typographical aids like boldface and italics to pick out key information"* was chosen by 21 respondents (mean scores between 3.40 – 4.67). They used context clues to gather the information.
c) Item 14 *"underlining or circling important information in the text"* was chosen by 25 respondents (mean scores between 3.20 – 4.73). They do look up important details and use schema to interpret the text.
d) Item 5 *"critically analyzing & evaluating the information read"* was chosen by 14 respondents (mean scores between 3.53 – 4.73). They do pay greater attention relating to the important points in the text to better understand the text.
e) Item 10 *"guessing the meaning of unknown words or phrases"* was chosen by 33 respondents (mean scores between 3.00 – 4.67). They do re-evaluate and revise hypotheses about the meaning of the context, use strategy to remember the text, determine the unfamiliar words, and so on (Batang, 2015).

Moreover, most of the MARSI-R scores were at a high level, and some of them were at a moderate level. Both showed that EFL students tend to have some techniques effectively in using appropriate strategies when they read an English text. For instance, as seen in item 10 *"guessing the meaning of unknown words or phrases"* 33 respondents answered the number 5 Likert scale which indicated that they know that strategy quite well, and they often use it when they reading, 23 respondents answered the number 4 Likert-scale, and 4 respondents answered the number 3 Likert-scale. This finding pointed out that by

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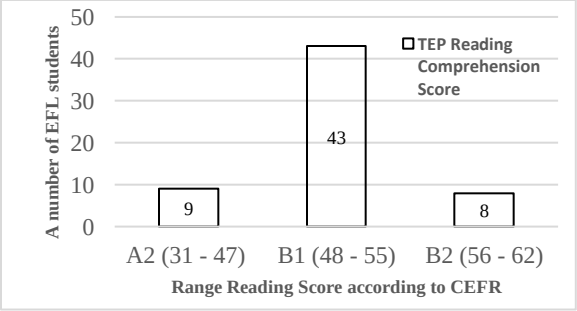
guessing the unknown meaning that they did not even hear of or seen that vocabulary before, then, it can be one of the techniques they used and it works effectively. As stated by Deliany & Cahyono, (2020), in some cases, when learners need to comprehend a sentence, guessing the meaning of unfamiliar words or sentences may be a more efficient and effective method rather than looking at dictionaries. EFL learners use their ability to develop reading efficiency by guessing the words from context without referring to a dictionary, interpreting the available evidence, and predicting what the meaning will occur. In accordance with Mart, (2012), *'guessing the meanings of words from context'* can be a successful way for learners if they want to develop reading fluency and enhance reading efficiency. Also, this strategy is considered to be significantly useful for learners. The more students read and guess the meanings of words from context, the more likely it is that the same word will appear in other literature, allowing them to expand their vocabulary knowledge.

During the process of reading comprehension, readers can use metacognitive strategies such as controlling whether they can understand the text or not. They had to identify an acceptable cognitive approach to improve comprehension if they already had comprehension failed (metacognition). As stated by Miyamoto et al., (2019), a scenario-based metacognitive knowledge test is frequently used to assess metacognitive understanding of reading strategy, for instance: some scenarios are given to students such as "You must comprehend and memorize a text" and then prepared with any kind of strategies such as "I have to focus on these parts of the text that are easy for me to understand," or "I underlined the essential parts of the text," and " I read aloud of the text to another person."

Furthermore, there were only a few respondents who never heard that kind of strategy in the questionnaire MARSI-R, such as item 12 *"Reading aloud to help me understand what I'm reading"*. When doing the reading test, they did not use to read-aloud strategy to help their understanding. They believe that when reading aloud in a test situation, can disturb other students who want to keep focusing on answering the test. However, those EFL students might probably still have problems understanding the meaning of text even though they are already exposed to reading English text very often (Muhid et al., 2020), or they seem difficult to have an ability in interpreting any information from the text, thinking critically, and using context clues to find the meaning (Yusuf & Fitrisia, 2015; Halim et al., 2020). Notwithstanding, this finding indicated that when reading academic English materials, EFL students engage all of the Metacognitive reading strategies consciously and efficiently.

The Correlation between EFL University Students' Metacognitive Awareness of Reading Strategy and Their Reading Comprehension

Before obtaining the correlation between metacognitive awareness of reading strategy and their reading comprehension, firstly, the researcher developed a diagram of the frequency of the participants' reading comprehension scores based on CEFR (Common European Framework of Reference for Languages).



Fiigure 1. Reading Comprehension Score

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The range score was calculated to examine the number of EFL students, between Junior and Senior, who received reading comprehension scores. At the first range score, there had been 9 EFL students who obtained a score between 31 and 47 scores. In the second range score, there had been 43 EFL students who obtained a score between 48 and 55 scores. In the last range score, there had been 8 EFL students who obtained a score between 56 and 62 scores. Accordingly, derived from the results and the reading comprehension score category, there were 9 students in the A2 category which is considered Basic users/Elementary English, 43 students in the B1 category which is considered Independent users/Intermediate English, and 8 students in the B2 category which is considered Independent users/Upper-Intermediate English.

After the MARSI-R questionnaire results and TEP reading score have been gathered, both were analyzed using Spearman Rho Coefficient to find out the correlation between Metacognitive Awareness of reading strategy and reading comprehension. The table is clearly shown below.

Based on the correlation table below, metacognitive awareness of reading strategy and reading comprehension showed there is no correlation between them. It was proven by the level of significance/sig (**ρ** = .986) which is higher than .05. All the categories of metacognitive awareness of reading strategy (GRS **ρ** = .370, PRS **ρ** = .453, and SRS **ρ** = .193) also did not have any correlation with reading comprehension because **ρ** is higher than .05. Hence, this study accepted the null hypothesis (H_0) and rejected alternated hypothesis (H_a). It may be claimed that among EFL undergraduate students, there is no link between Metacognitive awareness of reading strategy and reading comprehension.

Table 6. Spearman Rho Coefficient

		GRS	**PRS**	**SRS**	**TOTAL**
READING	Spearman Rho coefficient	.118	.099	-.171	-.002
	Sig. (2 tailed)	.370	.453	.193	.986
	N	60	60	60	60

Table 6 shows that there is no relationship between EFL university's metacognitive awareness of reading strategy and reading comprehension. A previous research study by Meniado, (2016), found similar results study with this researcher. He revealed there is no correlation between metacognitive reading strategies and reading comprehension. Then, It also coincides in part with the findings by Molla, (2015). His study showed that with the use of compensation, metacognitive, social, and affective reading strategies neither a positive nor a negative relationship with reading comprehension was found. Meanwhile, there was a significant relationship positively with memory reading strategies and a significant relationship negatively with cognitive reading strategies. Then, the correlation study revealed that practically every type of reading strategy was unrelated to the student's reading comprehension level. This could be due to the students' lack of knowledge of what reading strategies to use, how to use them, and when to use them. On the one hand, the current study is one of the few studies disproving the findings of previous studies. Rastegar et al., (2017) revealed that the use of general metacognitive reading strategies by EFL students and their reading comprehension achievement had a significant positive correlation.

Hereinafter, the possible first factor why this study uncorrelated finding between metacognitive awareness of reading strategy and reading comprehension among EFL university students could be due to a lack of knowledge about reading strategies among the students themselves (Wudneh, 2018). As a result, the learners' low level of reading comprehension may have derived from their lack of understanding of how to employ various types of reading strategies appropriately and efficiently when reading written texts.

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According to Alsamadani (2009), experts in the field of reading, such as (Oxford, 1990), low strategy use is not always indicative of ineffective learning. The regular use of strategies does not guarantee that the learning will be successful. In some usual classes observation, learners will work hard and apply a variety of strategies, but they do not use them successfully and effectively. Because the frequency data by itself does not explain all about strategy use, other factors that affect learners' comprehension must be considered. The higher the use of metacognitive reading strategies by EFL students did not automatically result in higher comprehension.

The second factor that might happen is the participants who can be considered as "lower intermediate" level learners could be attributed to respondents' propensity to rank themselves highly on the metacognitive reading strategies inventory despite having lower skills on reading score assessments, which can negatively impact their reading comprehension ability. Also, this study found that the 30 respondents, item 9 *"Re-reading to make sure I understand what I'm reading"*, and 32 respondents, item 2 *"Previewing the text to see what it is about before reading it"*, were often used this strategy quite well when they read. Because of that strategy, most of them have the reading test with a range score between 48 – 55. To put it simply, metacognitive strategies influenced students' reading performance, it was shown by their reading comprehension in intermediate scores. It was also proven by Nurjamin et al., (2021), who clarify that readers who used one or two suitable metacognitive strategies to read a text, can give them a positive effect on their reading comprehension performance even though it is not giving a big impact, such as a good motivation and confidence in learning.

IV. Conclusion and Suggestion

This present research focused on exploring further of the level metacognitive awareness of reading strategy used by EFL learners and finding the correlation between metacognitive awareness of reading strategy and reading comprehension score. The result of the majority of participants was categorized as high group levels (82%) = 49 participants, with the mean value ranging between 3.5 - >3.5. When metacognitive reading strategies are classified into three scale sub-categories, university students' commonly utilized or preferred strategies are those that fall under the Problem-Solving Strategies category (PRS). EFL students employed Problem-Solving Strategies (PRS), which include paying attention while reading and keeping track of one's comprehension. This demonstrates that students are more concerned with text comprehension since it may help them better answer reading comprehension questions.

Moreover, the investigation of the correlation between EFL learners' metacognitive awareness of reading strategy and reading comprehension showed that there is no correlation among those variables because the **ρ** value was found 0.986. This resulting study was in accordance with previous studies by Molla (2015) and Meniado (2016). It happens because of some factors, firstly, Some EFL learners still have insufficient knowledge of what reading strategies to use, and how and when to use them appropriately. Secondly, based on the CEFR (Common European Framework of Reference for Languages) table, EFL learners are considered to have low intermediate reading test scores, ranging between 48 – 55. So, the learners' low level of reading comprehension may have derived from their lack of understanding of how to employ various types of reading strategies appropriately and efficiently when reading written texts.

In the matter of the conclusion about the result of this research study, the suggestion is addressed to future researchers that should be considered. This current study is also limited in several aspects, thus, the researcher advised that future researchers can conduct a similar study concentrating on the various language skills in English (e.g. speaking, listening, and writing), settings, and level grades of participants. Also, adding more research instruments such as interviewing is needed so that the researcher will know better what the students understand about what, when, and how to apply the metacognitive reading strategies appropriately. Additionally, while this study only included junior and senior university students, future research may include a larger number of participants from the same or different universities.

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