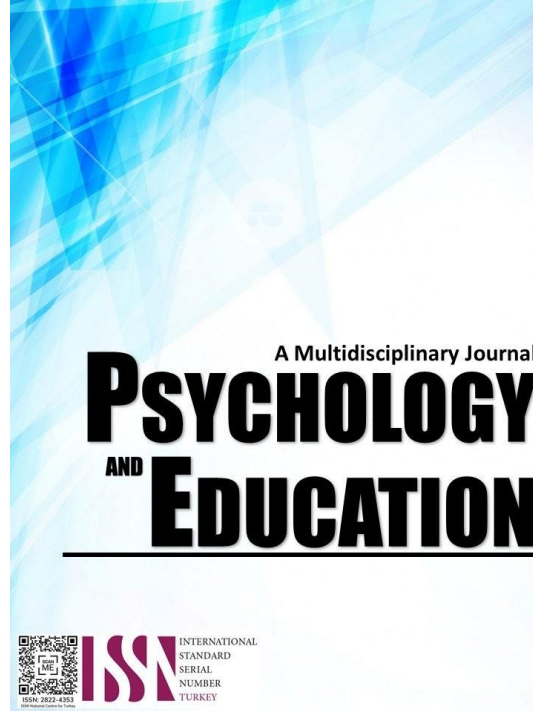


# IMPROVING READING COMPREHENSION USING METACOGNITION STRATEGY



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## Improving Reading Comprehension Using Metacognition Strategy

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### Abstract

This study aimed to determine the level of reading comprehension using the meta-cognition strategy in terms of self-monitoring, self-regulation, summarization, the level of reading comprehension among grade 7 to 10 learners, and the significant relationship between the meta-cognition strategy and the level of reading comprehension. This study used a descriptive correlational method of research. The result revealed that the level of reading comprehension using the meta-cognition strategy in terms of self-monitoring, self-regulation, and summarization was at a high level. Moreover, the result also revealed that the level of reading comprehension among learners was indicated as a high level. The result also revealed that there is no significant relationship between meta-cognition strategy and the level of reading comprehension. These suggest that educators explore additional factors and instructional methods that may more effectively influence reading comprehension. While metacognitive strategies should not be disregarded, combining them with other proven approaches such as explicit teaching techniques, interactive reading activities, and comprehension-based assessments may yield more significant results. Further, to sustain and further enhance learners' reading comprehension, it is recommended that educators continue to implement effective teaching strategies that promote active reading and critical thinking. Additionally, schools should consider providing additional resources and training to support learners who may still require improvement, ensuring that all students achieve optimal comprehension skills.

**Keywords:** *meta cognition, reading comprehension, self-monitoring, self-regulation, summarization*

### Introduction

Reading comprehension is a vital skill that forms the basis for both academic achievement and lifelong learning. It includes not just the ability to decode words but also the ability to understand, interpret, and engage with text at a deeper level. However, numerous studies indicate that many students struggle with reading comprehension because they find it difficult to understand basic ideas, decipher meanings, and remember information. Teachers and students have been researching the use of metacognitive techniques as a useful tool for enhancing reading comprehension skills to lessen these challenges. According to Chamot (2020), a significant number of students in metropolitan areas have reading comprehension difficulties, which has an impact on their overall academic performance and sense of self-worth.

Due to the diverse socioeconomic backgrounds of this population, there are obstacles that prevent people from developing healthy reading habits. Even with sufficient funding, local schools still struggle with issues like a shortage of qualified teachers with expertise in reading strategies and low parental participation in literacy initiatives. The situation is made worse by the growing prevalence of digital distractions, as students are turning more and more to screens for entertainment instead of reading. According to a recent poll, the reading proficiency of the pupils in this Cabanglasan district is alarming. Frustrated readers, who have trouble comprehending and interacting with reading, make up about 40% of the student body. This figure illustrates a broader pattern in which students express feeling overburdened by reading assignments, which leads to disinterest and, in certain situations, a complete dislike of reading.

Additionally, statistics indicate that about 25% of kids are classified as non-readers, which means they hardly ever or never choose to read outside of assigned reading. The issue is made worse by underfunded libraries and a limited range of diverse reading materials, which deprive students of the assistance they require to cultivate a love of reading (Rahmasari, 2019). These reading issues have a significant impact on pupils' self-esteem and prospects for the future. The researcher acknowledges the urgent need for efficient therapies that deal with these issues, especially metacognitive techniques that give students agency over their reading processes.

By becoming more aware of their reading habits and developing the ability to evaluate their comprehension critically, students can alter the way they approach texts. The goal of integrating metacognition into reading instruction is to create a generation of self-assured, independent learners who can readily navigate the challenges of reading, in addition to reducing the number of unsatisfied and non-readers. Lastly, addressing these problems with targeted remedies may help to revitalize a society that places a high importance on reading.

### Research Questions

This study aimed to improve reading comprehension using the meta-cognition strategy in Capinonan National High School, Cabanglasan District, for the School Year 2024-2025. Specifically, this study sought to answer the following questions:

1. What is the level of reading comprehension using the meta-cognition strategy in terms of self-monitoring, self-regulation, and summarization?
2. What is the level of reading comprehension among grade 7 to 10 learners?

3. Is there a significant relationship between meta cognition strategy and the level of reading comprehension?

## Literature Review

### *Self-Monitoring*

The cognitive strategy that necessitates awareness of one's own learning processes and development is known as self-monitoring. When it comes to reading comprehension, it describes a reader's capacity to identify when they are struggling with a passage of the text and then take appropriate action to improve their comprehension. To clarify concepts, this may mean going over the material again, posing queries, or using visual organizers (Jeson, 2019). According to Jeson's (2019) metacognitive reading strategy awareness theory, self-regulation and self-monitoring are crucial components of reading comprehension. These strategies encourage readers to read more and comprehend the written word or messages, in addition to improving reading comprehension.

The ability to identify ourselves as readers, the reading task we come across, and the reading material itself is known as metacognitive reading strategy awareness in reading comprehension processes. Brown (2018) explains how people accomplish jobs. In general, the reader's behaviors, such as planning, monitoring, and assessing the completion of a particular learning assignment, are referred to as Metacognitive Reading Strategy Awareness (O'Malley, 2017). Understanding whether comprehension takes place is part of metacognitive reading strategy awareness. and the deliberate implementation of one or more reading comprehension monitoring techniques.

According to Koda (2019), several studies have demonstrated a substantial correlation between reading comprehension and awareness of metacognitive reading strategies. When reading, proficient readers employ a variety of metacognitive reading techniques. Conversely, poorer or less proficient readers do not use these. They must use strategies when reading if they want to increase their reading comprehension. Research on how second language learners conceptualize their second language was done by Shinghal in 2021. Interviews shed light on how people read. The results showed that fluent readers prioritize reading as the approach is one of creating meaning rather than deciphering. The less experienced readers, however, stated that they felt the exact opposite.

Additionally, Barnett (2018) researched reading in a second language with French language learners. The results demonstrated that skilled readers were more aware of the metacognitive reading strategies they employed. Reading comprehension skills are used less frequently by less proficient readers. Additionally, Chern (2018) investigated the beneficial correlation between readers' reading and their awareness of metacognitive reading strategies. EFL/ESL learners' understanding process. According to Sheorey and Mokhtari (2021), the connection between metacognitive reading techniques and students' reading comprehension abilities is closely related, and this relationship is essential to the reading process.

Additionally, a poll of American college students revealed that proficient readers were more conscious and used strategies to a greater extent than low-ability readers. Recent studies have contrasted the efficacy of Training in cognitive and metacognitive reading strategies, showing that. In contrast, training in metacognitive strategies leads to more consistent, long-term comprehension advances; explicit training in cognitive processes produces only modest, short-term gains in reading performance (Tang, 2018).

The process of identifying and controlling one's own cognitive processes is known as metacognition. In the context of reading, metacognitive techniques make it easier to organize, track, and assess how well readers understand texts. Readers can improve their comprehension and retention of information by developing metacognitive awareness, which promotes a more active and deliberate reading approach (Grain, 2018). This involves identifying comprehension shortcomings, using appropriate techniques to overcome these obstacles, and being aware of one's reading strategies (Cyrus, 2019).

### *Self-Regulation*

The ability to manage one's own feelings, actions, and ideas in order to achieve objectives is known as self-regulation. It entails setting objectives, monitoring results, and adjusting as needed. Making decisions on how to approach a task, keeping an eye on oneself while completing it, and evaluating the results afterwards are all examples of self-regulation in educational settings. By helping students stay focused, manage their time, and overcome challenges, effective self-regulation enhances learning (Koda, 2019). The importance of metacognition is emphasized by Zimmerman (2022). He lists the following elements as part of his models of self-regulation: performance (monitoring), self-reflection (evaluation), and forethought (planning). His research indicates that students who use metacognitive strategies are more successful in controlling their attitudes and actions related to learning (McMahon, 2019).

Ismail and Tawalbeh (2019) created the Metacognitive Awareness Inventory (MAI), which assesses metacognitive awareness by breaking it down into two parts: management of cognition and knowledge of cognition. The results of their study show that better self-regulatory practices during knowledge acquisition are linked to higher levels of metacognitive awareness. A model that highlights the relationship between self-regulation, metacognition, and motivation is part of Pintrich (2019) research on self-regulated learning. He highlights the significance of teaching metacognitive techniques and integrating them into educational settings. In order to improve student results, they add environmental, motivational, and metacognitive elements into their model of self-regulated learning. They also analyze the interactions between these elements. He asserts that youngsters can learn to use metacognitive strategies, which makes them more self-reliant learners. According to Flavell's groundbreaking work in the subject of metacognition, learning strategies and

results are more successful when one has a better understanding of their own cognitive processes (metacognitive knowledge) and the capacity to control them (metacognitive regulation). Most of the subsequent research in the field of educational psychology was built upon his ideas (Roskie, 2018).

A study by Nash and Snowling (2019) looked at the relationship between self-regulated learning and metacognition. Drawing on his research, it seems that teaching students to become aware of their own metacognitive processes can enhance their learning effectiveness and self-regulation skills. Teaching pupils' metacognitive skills is crucial to increasing their metacognitive awareness. Teaching pupils how to organize, track, and evaluate their own learning is one of these tactics. Students should be encouraged to keep diaries in which they can reflect on their learning outcomes and processes in order to foster evaluation and self-assessment. If students are given the chance to use metacognitive thinking while solving a problem, they might be able to learn how to use these strategies on their own. Numerous studies back up the notion that using metacognitive techniques might help students become more adept at controlling their own thought processes. Consequently, this results in improved academic achievement and lifelong skills. Furthermore, more research is being done to examine the complexities of these relationships, which will eventually advance educational theory and techniques.

### **Summarization**

The process of distilling the most crucial details from a large amount of knowledge into a concise, coherent synopsis or assertion is known as summarization. By concentrating on the essentials and omitting extraneous details, this technique helps people make sense of significant ideas and subjects. Because it allows readers to engage with the content actively and validates their grasp of what they have read, summarization is a crucial skill for enhancing reading comprehension (Koda, 2019). Johnson (2019) asserts that summarizing aids pupils in understanding material, which then helps them retain it in their long-term memory.

One metacognitive strategy that is thought to be effective is summarizing, which also improves memory and understanding while making effective use of mental skills. In this study, the subject of whether university students can successfully use the summarizing approach as a comprehensive reading strategy will be examined. We assessed the university students' summaries for this study while keeping in mind the qualities of a qualitative summary. We decided to use the "document analysis method," a kind of qualitative research technique, throughout the investigation. We assessed 234 summaries as a qualitative data set as part of a research project with fourth-year students at the Turkish Teaching Program, Department of Turkish Education, Dokuz Eylul University. To evaluate these summaries, the "Assessment Criteria Form" was employed. These summaries were scored after being assessed by both researchers based on the criteria.

Johnson (2019) found that the first criterion's consistency coefficient was 84, the second criterion was 78, the third criterion was 82, and the fourth criterion was 71. We came up with the codes "setting the main theme," "digression from the main points of the text," and "superficial summarizing." These codes were created using the information gathered during the investigation. Through the collection of these codes, we also developed the topic of "getting in touch with the main and secondary points for the discussion." In general, we can say that the students are good at expressing the main idea, but they also include their own views and opinions in these summaries. Assisting students in developing their metacognition is a successful strategy for improving their college achievement. Students who have strong metacognitive abilities are better positioned to learn more and perform better than their peers who are still working on their metacognition (Memiş & Bozkurt, 2018).

Strong metacognition skills enable students to identify subjects they do not fully understand and select appropriate learning strategies for those subjects. They can implement the strategies they have selected and come up with comprehensive study plans. They can evaluate their approach and modify their strategies considering the outcomes. Students who employ metacognition can learn more effectively and efficiently, think more effectively generally, and think more expertly. Working in small groups gives students the chance to support each other's metacognition, which eventually leads to better performance. Since Flavell initially described metacognition in 1979, there has been a great deal of enthusiasm around the possible effects it may have on students' learning. As of right now, the article with the most citations in the field of CBE—Life Sciences Education is "Promoting Student Metacognition" (Tanner, 2022). Despite this enthusiasm, teachers face several challenges when they try to use metacognition to improve their students' learning, performance, and overall performance.

First, the definition of "metacognition" may not be completely clear due to its wide usage (Veenman, 2016). According to Pearson, P. D. (Ed., 2019), metacognition is the awareness and control of thought for learning. The idea of metacognition includes metacognitive knowledge, such as your understanding of your own thought processes and learning strategies. Furthermore, metacognitive regulation—the process of managing one's thoughts to gain knowledge—is included in the category of metacognition. Second, metacognition includes a broad range of skills and processes, each of which is mentioned and emphasized differently in the literature from various academic disciplines.

A closer look reveals that the metacognitive abilities and processes linked to many different fields are closely related to one another and often overlap. Thirdly, metacognition is made up of an individual's thoughts, which may be hard for them to express. Teachers find it difficult to identify metacognition in their students, and researchers find it difficult to measure metacognition since metacognitive processes are essentially implicit. As a result, foundational and laboratory research on metacognitive processes and skills has surpassed classroom intervention studies of metacognition, which are necessary to make the most certain recommendations for improving student

metacognition. This is because this research is crucial for formulating the most certain recommendations.

### ***Meta Cognition Strategy and Reading Comprehension***

The application of metacognitive reading techniques enables readers to understand the text's hidden meanings in addition to its evident ones. This is the meaning of the phrase "reading comprehension." Reading comprehension is a complex process that depends on the reader as well as the content being read. The National Institute for Health and Human Development (2020) and Pourhossein (2018) state that understanding what is being read, reading fluently (which takes time into account), and accurately (which necessitates phonological and orthographic processing) are the three most crucial components of reading. "The conceptualization of reading as composed of separable components" (p. 461) is important because it allows researchers to assess the relationship between the different reading components and how they are related to each other, according to Perfetti and Hogaboam (2017).

The goal of reading comprehension, according to Sweet and Snow (2019), is to infer meaning from the context in which the content is delivered. Reading comprehension is a complex cognitive process that allows the reader to combine information from the text with what they already know, which eventually leads to the description of a mental image (Habibien, M., 2019). During this interaction between students and environments, students use a range of experiences and knowledge, including language skills, cognitive information, and world knowledge. As a result, reading comprehension is a collaborative process between students and environments (Rumelhart, 2018). Researchers found that when reading a book, especially when it comes to reading comprehension, readers must use a wide range of tactics (Ismail, & Tawalbeh, 2019). This is because, to create meaning from written messages, readers must use a range of conscious and unconscious tactics to address problems during the reading comprehension process (Johnston, 2020). There are three types of metacognitive reading strategies: automatic, unconscious, and conscious.

According to Afflerbach et al. (2018), metacognitive reading strategies are specific, intentional, goal-directed mental processes or behaviors that regulate and alter the reader's attempts to comprehend texts. Most of the research on metacognitive reading strategy awareness in both L1 and L2 contexts has concentrated on clarifying and categorizing the metacognitive reading strategies used by proficient readers versus those used by less proficient readers (Maasum & Maarof, 2018).

Research conducted in L1 reading contexts has greatly benefited from studies on second language and foreign language reading strategies when it comes to metacognitive reading strategy awareness. Children in primary school or pupils enrolled in remedial classes made up most of the participants in these investigations (Grabe, 2017). Given the differences in language learners and contexts, it is plausible to doubt the usefulness of using research on reading in the first language as a springboard for an examination of the use of reading methods in the second language. One important area of concern is the practical question of how much less proficient readers of the first language are compared to less proficient readers of the second language (Rahmasari, 2019).

In other words, in addition to the impact of the learner's first language and literacy, the learner's proficiency in the second language must be considered. The fact that reading is a cognitively learned process for first-language readers—and, of course, for second-language readers as well—cannot be overlooked. The rationale behind this is that L2 research has relied heavily on earlier L1 work. Research on first-language reading strategies can be applied to second-language reading for several reasons (Chamot, 2020). The strategies of "self-planning," "self-monitoring," "self-regulating," "self-questioning," and "self-reflecting" are examples of higher-order performance elements that include planning for learning, monitoring, elucidating, and correcting the reasons behind comprehension failure or assessing the effectiveness of a learning activity (Zare, & Othman, 2019). One aspect of higher-order performance is awareness of metacognitive reading strategies. Since the two types of reading methods may be applied interchangeably, Zhang and Seepho (2018) assert that there is no difference between them.

Metacognitive reading strategies are a type of reading strategy that emphasizes cognition and offers planning, monitoring, and assessment activities that occur prior to, during, and following any reading activity (Topping, K. J., 2019). When reading, students use cognitive methods such as elaboration, organization, and rehearsal to absorb, learn, remember, and identify the content. To put it another way, cognitive strategies have to do with combining new information with existing knowledge. The successful completion of a task requires the application of cognitive methods. However, to understand how the job has been done, one must be aware of metacognitive reading strategies (Schraw, 2018). This is because metacognitive reading strategies include both conscious control over one's learning and awareness of it. In addition to the insights they provide into how readers structure their engagement with the text, the use of metacognitive reading strategies is significant due to the link between their application and the development of successful reading comprehension. According to Anderson and Therriault, (2021), understanding metacognitive reading methods is one of the most important things to emphasize when reading. These techniques aid readers in understanding what they are reading and are helpful for learning English as a second language and as a foreign language.

### ***Gained Insight***

Successful reading comprehension requires the use of metacognitive techniques like summarization, self-regulation, and self-monitoring. Self-monitoring comprises keeping a close eye on one's comprehension when reading, identifying areas of doubt, and identifying comprehension breakdowns. Because of this awareness, readers can fill in the gaps and improve comprehension by using self-regulation techniques like rereading, changing the speed at which they read, or asking questions. Finally, summarizing involves condensing the main ideas and important details into a brief format, indicating a greater level of expertise while validating the reader's

mental model of the content.

Effective use of these metacognitive skills improves comprehension, helps readers recognize important information, and increases their level of engagement with the reading experience, according to numerous studies. However, the effectiveness of these strategies varies based on personal factors, including motivation, text difficulty, and past knowledge. Notwithstanding the recognized advantages, there are still a lot of unanswered questions regarding the comprehension and use of metacognitive strategies for reading comprehension. Although a lot of research focuses on teaching these strategies explicitly, it is important to look into ways to promote the intentional and impromptu use of these skills in authentic reading contexts as opposed to merely using formal interventions. Additionally, further research is required to examine individual differences in the effectiveness of these strategies, accounting for factors including age-related variations, cultural backgrounds, and learning disabilities.

The optimal arrangement and sequencing of these metacognitive strategies, as well as the best ways to assess their use in real time while reading, require further investigation. Lastly, given the increasing prevalence of online reading and the potential for digital tools to either promote or impede metacognitive participation, more research is required to ascertain how technology and digital reading environments affect the successful application of these strategies.

## **Methodology**

### **Research Design**

For the academic year 2024–2025, the goal of this study was to enhance reading comprehension at Capinonan National High School in the Cabanglasan District by implementing the metacognition technique. A descriptive-correlational technique was used to conduct the study. To describe and assess reading comprehension and its influence on the reading comprehension level at Capinonan National High School utilizing the metacognition method, the descriptive technique was also used in this study. To help with the gathering and tabulation of responses from those who took part in the survey, a survey questionnaire was used.

### **Respondents**

The respondents of the study were the one hundred eighty-six (186) grade 7 to 10 learners in Capinonan National High School, Cabanglasan District, for the School Year 2024-2025. Total enumeration was used in the research. To gain a thorough and extensive grasp of the entire target population, researchers used total enumeration while examining reading comprehension levels utilizing metacognitive techniques. When metacognition is used, this method eliminates sampling error, giving a more accurate picture of the distribution and prevalence of understanding levels. Importantly, when working with smaller, more defined populations—like a single class or grade level—where the resources are available to reach every individual, this is especially helpful. Instead of depending on possibly less representative sample results, total enumeration offers the most reliable data for inferences regarding the influence of metacognitive methods over the full learner group, even though it requires a significant number of resources.

### **Instrument**

The questionnaires used in this study were modified from those used in Erich, C. (2013)'s "Meta Cognition Strategy for Reading" study. The instrument is divided into two sections. The first section covers the metacognition method in terms of summarization, self-regulation, and self-monitoring. The impact of the metacognition method on students' reading comprehension is covered in the second section. There are five questions in each section of the questionnaire. The surveys' five Likert scales serve as the foundation for each section and are used to assess how learners' reading comprehension is impacted by metacognition strategies.

### **Procedure**

Following the advice of the Dean of the Graduate School of Valencia Colleges Inc. to disseminate the research instrument to schools, a formal proposal was submitted to the Superintendent of the Schools Division in the Division of Malaybalay City. With permission from the superintendent of the school division, the researcher also sent letters of communication to the district supervisors. After the required correspondence and approval were completed, the participants answered the surveys in person. The surveys will be filled out by the respondents at the specified time and place inside the school. Since the respondents were not asked nor obligated to reveal their identities, the researcher made sure that the responses were kept private. On the same day, surveys were collected. We will classify, arrange, and tabulate the information that was taken from the survey as needed. The researcher then told data from the completed questionnaire. Data interpretation and analysis led to the creation of findings, conclusions, and recommendations.

### **Data Analysis**

The data from this study were analyzed and interpreted using the following statistical tools:

The mean and standard deviation can be used to examine data gathered from the metacognition approach to reading comprehension level in terms of self-monitoring, self-regulation, and summarization. The standard deviation shows the variability or spread of results around the mean, whereas the mean gives the average level of metacognitive reading comprehension for a group. Researchers can compare reading comprehension levels among groups or interventions related to the application of metacognitive strategies since a higher mean indicates stronger metacognitive awareness and a smaller standard deviation indicates more consistent performance within



the group.

A standardized reading comprehension exam, or a set of correctly graded passages followed by comprehension questions, is initially given by the researcher to students in grades 7 through 10 to determine their reading comprehension levels using mean and standard deviation. After recording each student's score, the mean (average) score for every grade level is determined. For that grade, the mean gives the central tendency of comprehension. The standard deviation, which displays the range or variability of scores around the mean, is next calculated. Most students in a grade score near the mean when the standard deviation is smaller, indicating that reading comprehension skills are generally uniform. A higher standard deviation, on the other hand, suggests that there is a greater range of reading comprehension skills within that grade. You may see whether comprehension skills have improved by comparing averages across grade levels, and you can see how consistent each group's understanding level is by comparing standard deviations. This information offers a numerical assessment of reading comprehension and aids in pinpointing areas that can benefit from extra attention or assistance from teachers. Researchers must first measure both variables statistically to apply Pearson's r correlation to examine the relationship between reading comprehension and the usage of metacognition strategies. This could entail giving them a standardized reading comprehension exam and a questionnaire measuring how frequently they employ metacognitive techniques.

Following data collection, the degree and direction of the linear relationship between the two variables are ascertained by computing Pearson's r correlation coefficient, which ranges from -1 to 1. Higher degrees of metacognitive strategy utilization are linked to improved reading comprehension, according to a positive correlation; conversely, a negative correlation would imply the opposite. Whether the observed association is likely the result of chance would depend on the statistical significance of the correlation, which is often evaluated using a p-value.

## Results and Discussion

The data collected from the respondents is presented, analyzed, and interpreted in this section. The sequence of problems in the problem statement determines the presenting order.

The reading comprehension level utilizing the metacognition technique in terms of self-monitoring is shown in Table 1. It was assessed using several indicators, each of which has a mean and standard deviation (SD).

Table 1. *Level of reading comprehension using meta cognition strategy in terms of self-monitoring.*

<i>Indicator</i>	<i>Mean</i>	<i>SD</i>	<i>Interpretation</i>
I check my comprehension throughout reading. If I am confused, I reread the section, search up unfamiliar terms.	4.01	0.888	High Level
I reflect what I have read.	3.90	0.871	High Level
I discuss the learnings with my classmates or a study group, and sharing opinions can improve my understanding and identify areas for improvement.	3.90	0.998	High Level
I write down my reading goals before starting. This could include grasping the primary idea, summarizing a part, or highlighting essential arguments.	3.87	0.760	High Level
I understand the content and structure, skim headings, subheadings, and highlighted text. This activates my prior knowledge and focuses reading.	3.40	0.692	High Level
<b>Overall</b>	<b>3.82</b>	<b>0.414</b>	<b>High Level</b>

*Legend: 5 (4.20-5.00) – Very High, Very High Level; 4 (3.40-4.19) – High, High Level; 3 (2.60-3.39) – Moderately High, Moderate Level; 2 (1.80-2.59) – Low, Low Level; 1 (1.00-1.79) – Very Low, Very Low Level.*

According to Table 1, the respondents' self-monitoring techniques demonstrate a high degree of reading comprehension. "I check my comprehension throughout reading," is one of the symptoms. I read the piece again and look up any unfamiliar terminology if I'm unclear. showed the highest mean (Mean = 4.01, SD = 0.888), indicating that the majority of respondents actively track their comprehension and take remedial action when they run across problems. A pair of indicators, including "I reflect on what I have read." (Mean = 3.90, standard deviation = 0.871) and "I discuss the learnings with my classmates or a study group, sharing opinions can improve my understanding and identify areas for improvement." (Mean = 3.90, SD = 0.998) also scored highly, suggesting that students regularly use peer conversations and reflection to strengthen their understanding. I also put my reading objectives in writing before I begin. This could entail understanding the main idea, summarizing a section, or emphasizing key points. (Mean = 3.87, SD = 0.760) received comparable ratings, indicating that the respondents frequently set reading goals. "I understand the content and structure, skim headings, subheadings, and highlighted text" was the sign with the lowest mean. This helps me focus while reading and activates my past knowledge. (SD = 0.692, mean = 3.40), yet it is still classified as high-level. Having a mean score of 3.82 overall (SD = 0.414).

The high degree of reading comprehension achieved through the use of metacognitive techniques, especially self-monitoring, indicates that students who actively assess their comprehension while reading are better able to understand challenging materials.

According to this conclusion, educational programs should place a strong emphasis on teaching students how to evaluate their understanding, identify when they are confused, and use solutions to overcome obstacles. Teachers can develop autonomous, strategic readers who can modify their reading strategies for different situations by helping students become more conscious of their cognitive processes. Furthermore, as comprehension is the cornerstone of learning, incorporating self-monitoring strategies into reading curriculum can result in enhanced academic achievement across topics.



Sheorey and Mokhtari's (2021) research demonstrated the value of metacognitive techniques such as self-monitoring in improving reading comprehension. Their research showed that students who successfully use self-monitoring techniques are more adept at spotting comprehension errors and using remedial techniques, like rereading or summarizing, to improve comprehension. Memiş and Bozkurt (2018) corroborated these findings by highlighting the fact that adept readers consistently assess their comprehension and modify their tactics accordingly, demonstrating greater comprehension levels than non-self-monitoring readers. According to these findings, teaching metacognitive techniques can greatly enhance students' reading comprehension abilities. These findings are also supported by more recent research by McMahon (2019). Higher levels of self-monitoring were associated with greater reading comprehension scores in their research of the connection between metacognitive awareness and reading comprehension among ESL students.

The reading comprehension level utilizing the metacognition technique in terms of self-regulation is shown in Table 2. It was assessed using a number of indicators, each of which has a mean and standard deviation (SD).

Table 2. Level of reading comprehension using meta cognition strategy in terms of self-regulation.

Indicator	Mean	SD	Interpretation
I get away from distractions and read in peace. This improves concentration and comprehension.	4.26	0.622	Very High Level
I ask myself questions and explain the topic in your own terms.	3.88	0.726	High Level
I record my thoughts, feelings, and insights about diverse texts in a reading journal.	3.53	0.590	High Level
I adjust my pace to the text's complexity.	3.50	0.590	High Level
I set reading times and stick to them to form a habit.	3.42	0.496	High Level
Overall	3.72	0.328	High Level

Legend: 5 (4.20–5.00) – Very High, Very High Level; 4 (3.40–4.19) – High, High Level; 3 (2.60–3.39) – Moderately High, Moderate Level; 2 (1.80–2.59) – Low, Low Level; 1 (1.00–1.79) – Very Low, Very Low Level.

According to Table 2, respondents use self-regulation techniques to demonstrate a high degree of reading comprehension. One of the markers is "I read quietly and avoid distractions." This enhances focus and understanding, had the greatest mean (Mean = 4.26, SD = 0.622), suggesting that the majority of respondents value a distraction-free setting to improve comprehension and concentrate. We also gave high marks to other signs, like "I ask myself questions and explain the topic in my own terms." (Mean = 3.88, SD = 0.726), highlighting the significance of rephrasing and self-questioning for a better understanding. Similarly, "I record my thoughts, feelings, and insights about diverse texts in a reading journal." (SD = 0.590, mean = 3.53) and "I adapt my tempo to the intricacy of the text." (Mean = 3.50, SD = 0.590) indicate that respondents commonly use reflective and adaptive reading styles. "I set reading times and stick to them to form a habit" was the indicator with the lowest mean. (Mean = 3.42, SD = 0.496), Although it is still classified as high-level. The results show that respondents actively control their reading habits and comprehension techniques, with a significant preference for removing distractions and using self-questioning to improve understanding.

The overall mean score was 3.72 (SD = 0.328). Students are actively monitoring, assessing, and modifying their reading processes to improve comprehension, according to the data showing a high level of reading comprehension employing metacognition strategies in terms of self-regulation. Students who are adept at self-regulation are better able to establish clear objectives, select sensible tactics, and adjust their strategy when they run into problems. They may perform better academically and comprehend difficult materials more deeply as a result of their increased awareness of and control over their learning processes. Teachers should take advantage of this realization by advocating for clear teaching of self-regulation techniques, motivating students to consider how they understand, and giving them chances to exercise these abilities in a variety of subject areas. Metacognitive methods have been shown to improve reading comprehension in numerous studies.

Nash and Snowling (2019), for example, emphasize the significance of self-regulation as a part of metacognition that supports successful reading comprehension. Furthermore, a 2017 study by Perfetti and Hogaboam showed that students who were trained to use self-regulatory techniques—like summarizing, asking questions, and clarifying—had better comprehension abilities than those who did not. Similar to this, Pourhossein (2018) highlighted the importance of self-regulation in academic success, pointing out that students who actively organize, monitor, and assess their reading assignments typically perform better and show more perseverance when faced with challenging materials.

Afflerbach's (2016) research further supports the favorable correlation between reading comprehension and self-regulation. According to him, students with strong self-regulation abilities are more likely to successfully use cognitive and metacognitive techniques, which improve understanding results.

The level of reading comprehension utilizing the metacognition technique in terms of summarization is shown in Table 3, which was assessed using a number of indicators, each of which has a mean and standard deviation (SD).

The findings in Table 3 show that respondents use summarizing techniques to exhibit a high degree of reading comprehension. The indication with the highest mean was "I read the introduction and conclusion to gain an understanding of the central concept." (Mean = 3.89, SD = 0.752), indicating that the majority of respondents successfully understand the text's primary idea by relying on important passages. Another indicator that was highly interpreted was "I reread the summary to guarantee its coherence and clarity." "I eliminate redundant or superfluous descriptions that do not enhance the primary concepts" and "Mean = 3.81, SD = 0.637." (Mean = 3.48, SD =



0.840), highlighting the respondents' attempts to improve the clarity and comprehension of their descriptions. According to the moderate level category, the indications with the lowest ratings are "I look for statistics, examples, or facts that substantiate the primary concepts." (Mean = 3.20, SD = 0.837) and "I use a mind map or bullet points to organize my thoughts." (SD = 0.584, mean = 3.01). This shows that although respondents acknowledge the value of organized arrangement and supporting details in summarizing, they are not as commonly used as other tactics.

Table 3. *Level of reading comprehension using meta cognition strategy in terms of summarization.*

Indicator	Mean	SD	Interpretation
I read the introduction and conclusion to gain an understanding of the central concept.	3.89	0.752	High Level
I reread the summary to guarantee its coherence and clarity.	3.81	0.637	High Level
I eliminate redundant or superfluous descriptions that do not enhance the primary concepts.	3.48	0.840	High Level
I look for statistics, examples, or facts that substantiate the primary concepts.	3.20	0.837	Moderate Level
I organize my thoughts by employing a mind map or bullet points.	3.01	0.584	Moderate Level
Overall	3.48	0.452	High Level

Legend: 5 (4.20–5.00) – Very High, Very High Level; 4 (3.40–4.19) – High, High Level; 3 (2.60–3.39) – Moderately High, Moderate Level; 2 (1.80–2.59) – Low, Low Level; 1 (1.00–1.79) – Very Low, Very Low Level.

Overall, the results show that respondents regularly use summarization strategies to enhance their reading comprehension, with a mean score of 3.48 (SD = 0.452). Students who actively monitor and regulate their understanding are better able to understand and remember complicated information, as seen by the high level of reading comprehension attained through the application of metacognitive methods, especially summarization. As a metacognitive technique, summarization helps students to organize information rationally, promote memory retention, and extract key concepts from texts. Students actively reflect on their understanding, fill in the gaps, and meaningfully recreate the content as they summarize. As a result, this method fosters critical thinking and the capacity to effectively communicate knowledge in addition to improving comprehension. Teachers can take advantage of this result by integrating practice and explicit teaching into the curriculum to improve students' comprehension in a variety of areas.

A number of research supports the idea that summarizing as a metacognitive technique greatly improves reading comprehension. For example, Afflerbach et al. (2018) discovered that students who received summarizing technique instruction outperformed those who did not in terms of comprehension scores. The researchers underlined that summarizing facilitates information organization and reformation, which enhances cognitive processing. According to a study by Zare and Othman (2019), readers must integrate and assess information in order to summarize it effectively. These skills are essential for comprehension. The study also found that by promoting active interaction with the material, summarization enhances memory recall and promotes deeper comprehension.

Zhang and Seepho's (2018) research provides additional evidence for the efficacy of summarizing as a metacognitive strategy. Their research on verbal reading procedures highlights how proficient readers continuously assess and modify their comprehension strategies, especially when it comes to summarizing.

The learners' level of reading comprehension is shown in Table 4 and was assessed using a number of indicators, each with a corresponding mean and standard deviation (SD).

Table 4. *Learners' Level of Reading Comprehension.*

Indicator	Mean	SD	Interpretation
I am more likely to engage with materials, which leads to better comprehension	3.69	0.870	High Level
I am more likely to stay engaged and motivated to read.	3.66	0.906	High Level
I can focus on reading and learning new ideas.	3.59	0.693	High Level
I have stronger cognitive talents that are frequently associated with greater reading comprehension outcomes.	3.45	0.579	High Level
I am able to effectively understand the passage I have read and create a positive outcome.	3.29	0.455	Moderate Level
Overall	3.54	0.344	High Level

Legend: 5 (4.20–5.00) – Very High, Very High Level; 4 (3.40–4.19) – High, High Level; 3 (2.60–3.39) – Moderately High, Moderate Level; 2 (1.80–2.59) – Low, Low Level; 1 (1.00–1.79) – Very Low, Very Low Level.

According to Table 4, students demonstrate a high degree of reading comprehension. With the highest mean, the indicator is "I am more likely to engage with materials, which leads to better comprehension." (Mean = 3.69, SD = 0.870), indicating that students believe reading resources are essential to improving their comprehension abilities. The following are additional indicators that are likewise classified as high-level: "I am more likely to stay engaged and motivated to read." "I can concentrate on reading and learning new ideas" and "Mean = 3.66, SD = 0.906." (Mean = 3.59, SD = 0.693), suggesting that students typically stay motivated and focused while reading, two factors that support their comprehension skills. furthermore, "I have stronger cognitive talents that are frequently associated with greater reading comprehension outcomes." A high degree of interpretation was also given to (Mean = 3.45, SD = 0.579), highlighting the importance of cognitive abilities in successful reading comprehension. With the lowest mean, the signal is "I am able to effectively understand the passage I have read and create a positive outcome." (Mean = 3.29, SD = 0.455), indicating a modest degree of proficiency. Overall, the results show that students have a high level of reading comprehension, with a mean score



of 3.54 (SD = 0.344).

The high degree of reading comprehension among students indicates that they possess the skills necessary to successfully decode, process, and comprehend challenging materials. They can understand underlying meanings, draw conclusions, and critically evaluate material thanks to this proficiency. These abilities improve students' capacity to assimilate and integrate knowledge from a variety of courses, making them crucial for academic achievement. Moreover, enhanced writing abilities, vocabulary expansion, and general cognitive development are associated with high reading comprehension levels. By creating curriculum that promotes deeper engagement with texts and activities that strengthen analytical and critical thinking skills, educational institutions can build on these qualities.

The importance of advanced reading comprehension in promoting academic success has been emphasized in a number of research. For example, Maasum and Maarof (2018) highlight that in order to improve comprehension, skilled readers frequently actively participate in formulating predictions, summarizing information, and challenging the content. They discovered that students' comprehension of complex texts might be greatly enhanced by the explicit instruction of comprehension techniques. Furthermore, according to Chamot (2020), motivation is essential for improving reading comprehension, especially when students are given engaging and pertinent reading materials that encourage cognitive engagement. The study showed that a well-integrated instructional approach that blends strategy training with motivational support frequently produces high-level comprehension.

Furthermore, Johnston (2020) studied the cognitive processes of reading comprehension in great detail. According to his research, proficient readers use a range of metacognitive techniques, including tracking comprehension, going over challenging portions again, and modifying reading speed based on the complexity of the text. These techniques, which are crucial for advanced reading comprehension, are frequently acquired via regular practice and exposure to a variety of reading materials. One characteristic that sets apart students with high comprehension levels is their ability to use these methods successfully, highlighting the significance of focused teaching strategies that encourage strategic reading.

The substantial correlation between reading comprehension level and metacognition method is shown in Table 5, which was assessed using a number of indicators, each with its own r-value and p-value.

Table 5. *Test of significant relationship between meta cognition strategy and the level of reading comprehension*

<i>Variable</i>	<i>r</i>	<i>p-value</i>	<i>Interpretation</i>
Self-Monitoring	-.087	.237	Not Significant
Self-Regulation	.056	.444	Not Significant
Summarization	.124	.093	Not Significant
Overall	.053	.473	Not Significant

According to Table 5, there is no meaningful correlation between reading comprehension proficiency and the application of metacognition techniques. In particular, there are no significant relationships between reading comprehension and self-monitoring ( $r = -0.087$ ,  $p\text{-value} = 0.237$ ), self-regulation ( $r = 0.056$ ,  $p\text{-value} = 0.444$ ), or summarization ( $r = 0.124$ ,  $p\text{-value} = 0.093$ ). The lack of statistical significance in the association between metacognitive methods and reading comprehension is further supported by the overall correlation ( $r = 0.053$ ,  $p\text{-value} = 0.473$ ). As a result, the null hypothesis is accepted. These results imply that although metacognitive techniques like summarization, self-regulation, and self-monitoring are frequently employed, they had no direct effect on the reading comprehension levels of the participants in this study.

Although metacognitive strategies are frequently promoted to improve comprehension, their efficacy may differ based on how they are used and incorporated into the learning process, according to the findings that indicate no significant relationship between metacognition strategies and reading comprehension level. Teachers and educators should be aware that reading comprehension may not significantly increase if metacognitive skills are only taught without effective implementation. Rather, teachers might need to concentrate on helping pupils build their fundamental reading abilities while encouraging the adoption of effective strategies. Curriculum designers may also need to reconsider how much emphasis is placed on metacognitive techniques and investigate additional variables that affect reading comprehension.

Metacognitive methods and reading comprehension have been found to have weak or non-significant associations in a number of studies. For example, Habibian (2019) contends that although metacognitive techniques are crucial, their impact is not always quantifiable, particularly when students are not proficient enough in reading to make effective use of them. Pourhossein (2018) also noted that metacognitive tactics are naturally used by proficient readers, but that teaching poor readers to apply them does not always lead to better comprehension. Furthermore, Pearson (2019) discovered that without adequate cognitive resources and motivating factors, metacognitive knowledge by itself was insufficient to improve reading comprehension. The findings also imply that additional factors that might influence the association between reading comprehension and metacognitive methods should be investigated in future studies.

According to Barnett (2018), students' comprehension and application of metacognitive strategies—which call for practice and reinforcement—determine how effective they are. Additionally, Moore (2018) emphasized that metacognitive skill development is a

long process that needs to be integrated with cognitive development in general.

Thus, researchers want to look into whether integrating metacognitive techniques with motivational interventions or direct reading instruction can result in more significant gains in comprehension abilities.

## Conclusions

The study's conclusions were derived from the previously mentioned findings: The study's conclusions show that using metacognitive techniques—more especially, self-monitoring, self-regulation, and summarization—significantly and highly improve participants' reading comprehension. This implies that pupils who actively use these techniques have enhanced comprehension skills since they are better able to comprehend, process, and remember knowledge.

The findings show that students have a high level of reading comprehension, indicating that they have a well-developed capacity for comprehension, interpretation, and analysis of written materials. Effective teaching techniques, learning tactics, or instructional interventions that may have aided in their success are reflected in this high level of comprehension.

The results show that learners' reading comprehension skills and their usage of metacognitive techniques are not significantly correlated. This implies that although metacognitive techniques like self-regulation, self-monitoring, and summarization could be helpful, they don't directly or quantifiably improve reading comprehension in the context of this study.

Hereby, the following suggestions are made:

To further improve reading comprehension, it is advised that teachers regularly include metacognitive techniques like self-monitoring, self-regulation, and summary in their lesson plans. To help teachers successfully apply these tactics, schools should offer tools and training.

To optimize their learning outcomes, students should also be taught to intentionally use these tactics throughout reading exercises. It is advised that teachers keep using successful teaching techniques that encourage active reading and critical thinking to maintain and improve students' reading comprehension. To guarantee that all children attain the best possible comprehension skills, schools should also think about offering extra materials and instruction to help those who might still need them.

It is advised that teachers investigate other elements and teaching strategies that might have a greater impact on students' reading comprehension. Although metacognitive strategies shouldn't be ignored, they may produce more meaningful outcomes when combined with other tried-and-true methods like interactive reading exercises, clear teaching methodologies, and comprehension-based assessments. It is also recommended that more research be done to look at other possible factors affecting reading comprehension.

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