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University students' metacognitive knowledge on reading technique and academic success

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The authors declare that there is no possible conflict of interest in this study.

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Similarity

This study was scanned in the iThenticate program. The final similarity rate is 10%.

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Abstract

Since reading creates memories and is essential for future success, this study examines the awareness and application of metacognitive knowledge on reading methods among students at Muhammadiyah University of Makassar. Successful readers are those who exhibit self-determination and motivation. A questionnaire designed to ascertain students' comprehension of reading methods when they are reading literary works is called Metacognitive Knowledge on Reading Techniques (MARSİ). The most crucial question is what students think about the importance of problem-solving, global reading, and support reading strategies for academic performance. In this study, 141 participants from two universities were included. The MARSİ-R one's reflection described the data collection tool. A reading strategies survey assessed the students' metacognitive comprehension of the global, problem-solving, and support reading strategies utilized in academic reading. The results demonstrated that the participants were acquainted with academic reading techniques because they regularly used them. Academic reading students used and understood reading techniques the least, even though they were aware of and employed problem-solving techniques most of the time. They were conscious of and regularly employed problem-solving strategies.

EXTENDED ABSTRACT

This research explores the awareness and use of metacognitive knowledge on the reading techniques of students of the Muhammadiyah University of Makassar; since reading is a way of building memories, and it is necessary for future success, readers who possess self-determination and motivation are successful. Metacognitive knowledge of reading techniques (MARSİ) is the knowledge to have; thus, a questionnaire is intended to determine students' knowledge of reading techniques when reading literary works.

The most important question is what students believe about the role problem-solving, global reading, and support reading strategies play in academic success. One hundred forty-one individuals representing two universities took part in this study. The MARSİ-R one's reflection described the tool used to gather the data. A survey of reading strategies was used to examine the students' metacognitive understanding of the global, problem-solving, and support reading strategies used in academic reading. The findings showed that the participants routinely employed academic reading techniques and were conversant with them. While they used and were aware of problem-solving techniques the majority of the time, academic reading students used and understood reading techniques the least. They used problem-solving techniques frequently and were aware of them, but they used the fewest supporting techniques when reading academically.

Keywords: Marsi, Reading Comprehension, Metacognitive Awareness, Problem-Solving Techniques, Reading Strategies.

INTRODUCTION

Regardless of their level of English ability, students must take the initiative to employ their understanding abilities when completing academic reading assignments in English. Metacognition, or the reader's consciousness to regulate and monitor the cognitive process, is the primary factor in boosting reading comprehension. Metacognition can be defined as the act of thinking.

Students can self-regulate since they are aware of their learning style and process and can judge how quickly and effectively strategy. Metacognition, or the reader's individual consciousness to regulate and monitor the cognition process, is critical to increasing reading comprehension.

Students also think about ways to optimize these processes so students can read and study. Students who are self-aware of their metacognition exhibit self-knowledge, which is defined as understanding their best working methods and strategies and the conditions under which they can learn more efficiently. They then apply this information to put these methods into action, monitor their effectiveness, and evaluate the entire process known as self-regulation. The security of the educational setting is the primary goal of learning, supervision, and instruction. It has been discovered that most educational issues, such as low achievement, absenteeism, stagnation, and academic dropouts, are brought on by the adoption of ineffective study schedules in terms of study time. Academic success and scholastic achievement have recently caused some anxiety among educators. What are some of the crucial elements that support kids' academic success? It should be highlighted that modern society can only achieve its goals of financial development, mechanical expansion, and cultural advancement if its members' capacity is improved. As a result, the primary goal of educational struggle is to improve pupils' academic results. Pupil academic activities are directly related to learning styles and reading techniques for developing study habits (Khan & Rasheed, 2019). A study habit is the presence of a suitable study routine in a suitable study environment. Khan & Rasheed, 2019).

Metacognitive understanding of reading methods assists students in determining which strategies they can and should use. According to the research on reading English in L1 and L2, reading comprehension is significantly impacted by metacognitive awareness. Less experienced readers, on the other hand, must work very hard to improve their reading skills using a variety of tactics. To support students in a classroom setting, teachers must be aware of the strategies utilized by both successful and failed students. Various. Creating study strategies that have been shown effective for learning is the most fundamental phase in a student's educational progress. Learning strategies are actions and ideas students use to process new knowledge while referencing existing understanding. Learning strategies can be cognitive (Khan & Rasheed, 2019).

Cognitive processes that are involved in the process of storing new information include elaboration and rehearsal. This research examines metacognitive awareness, a critical component of compelling strategic reading, especially academic reading. However, the goal of the current study was to ascertain how well aware Muhamamdiyah University students and the English Department were of the academic reading practices of Samarkand State Institute of Foreign Languages. It can still be argued that metacognition has not yet been entirely accepted as an

essential component of language learning and teaching by as many researchers and scholars as desired, even though it is now recognized as a necessary tool for lifelong learning and adaptability in multilingual and multicultural societies that are constantly changing (Haukås et al., 2018). People argue that people's ability to reflect on their thoughts, or metacognition, is essential (Haukås et al., 2018). In this study, the terms students and learners are used interchangeably. As a result, metacognitive guidance is anticipated to influence learners' elaboration and learning processes while working in groups (F. Teng & Reynolds, 2019).

According to (Siyaya, 2022), Along with specific skills, awareness -such as students' metacognitive awareness- is an essential part of learning; according to cognitive with specialized skills, awareness, such as students' metacognitive awareness, is a vital part of learning. Metacognitive techniques are high-order executive abilities that use understanding cognitive processes and represent an effort to control one's own learning through planning, monitoring, and assessing. For metacognitive awareness, Maftoon and Fakhri Alamdari (2020) define it as a phenomenon. The various ways a person perceives the circumstances and events in their life. (Muhid et al., 2020. Students are more likely to succeed if they are conscious of their own metacognition than those who are not, and this will help them better handle problems in daily life. According to Widiyasari et al. (2002), metacognitive awareness is the ability to organize, sequence, and keep track of learning in making progress evident right away. Reading plays a big part in information-gathering, especially in an academic setting. Reading takes on a crucial. It is essential to study various academic books well and independently.

Nonetheless, a significant number of students exhibit a passive. Too many children develop a dislike for reading and begin to perceive it as a challenging task as a result of their reading habits, which hinders their capacity to comprehend the essential reading materials accurately. In addition, these people need help using reading strategies that meet their needs and show little learning autonomy.

Furthermore, a significant proportion of them need to be made aware of the existence of potential reading strategies that they could employ. The pupils must dedicate enough time to creating more active reading methods to avoid having negative feelings about reading. Since reading is a cognitive activity involving readers engaging with text, the lecturer must teach the students to employ reading methods intentionally, especially metacognitive strategies. Readers continually form hypotheses, test predictions, and produce meaning while reading using their vocabulary and

linguistic skills. Reading comprehension is a linguistic skill taught in primary school and is constantly developed in later years. (Aşkan & Saban, 2018). Reading strategies primarily center on three metacognitive skills: support reading, global reading, and problem-solving. These metacognitive techniques support language instructors in understanding the diverse reading preferences of their students and deciding which reading strategies to introduce in the language classroom would be the most successful.

Reading at a slower pace, reviewing the text, reading the passage aloud, and making educated guesses about the meaning of challenging words are all problem-solving techniques. Utilizing some reference materials and support reading strategies gives readers additional reading abilities to employ when reading (Deliany & Cahyono, 2020). Such tactics are thought to offer information that describes the control readers exercise over their interactions with printed material to increase reading efficiency and comprehension. Metacognitive awareness is the term for the reader's awareness, monitoring, and adjustment of various methods during reading. Because learners with metacognitive awareness can actively control the ability to effectively use logic and tactics when reading and quickly access and use these tools for future reading, it is considered a crucial component of excellent strategic reading. The ability to plan for reading comprehension is beneficial for reading achievement (Bria & Mbato, 2019). This study aimed to evaluate college students' meta-cognitive reading comprehension. In order to assess students' meta-cognitive understanding of the general, problem-solving, and supportive reading techniques used in academic reading, the Survey of Reading Methods was created.

The findings showed that the participants were conversant with and consistently used academic reading strategies. They generally used and mastered problem-solving techniques, but they used supporting techniques the least while reading academically. Conversely, less proficient readers need to put in a lot of effort to improve their reading abilities. Teachers must, therefore, be aware of this in the classroom. One of the strategies used by successful and failed students to help them is claims (Mustajab Ahmed, 2020b). They understand the meaning of the visual symbols that provide the language's shape and engage in some semantic processing. It is anticipated that it will inform a student. Understanding the essential requirements for proficient reading comprehension is crucial, and taking measures toward accomplishing the reading objectives with proficiency is feasible. It also entails using sophisticated reading techniques and having an understanding of these abilities and how to control them, which is a form of meta-cognition.

Skilled readers frequently have specific goals in mind while choosing to read. Proficient readers possess knowledge beyond simply decoding words. They are aware of multiple strategies for decoding and engage in activities such as monitoring, altering, and predicting their decoding processes to ensure their efficacy. During reading, they usually use these strategies unconsciously. However, when they confront difficulty or misunderstanding, they intentionally draw on their knowledge, picking from various integrated ways to support and improve their comprehension. In other words, proficient readers know how to combine cognitive and metacognitive processes to comprehend texts on a deeper level. The effective use of these processes is necessary for reading comprehension, as is the creation of strategies for understanding words, sentences, and full texts. As a result, it is critical to provide explicit instruction in reading skills to struggling readers in order for them to improve. However, it is critical to assess strategies to find clues about what learners must do to provide efficient instruction.

Conceptual and Theoretical Framework

Concepts

More precisely, by evaluating how well students apply their reading strategies, teachers can assist students in realizing that improving their awareness of the reading process is an essential first step toward becoming more thoughtful, strategic, and constructive readers. Numerous pupils have mentioned running into various issues when trying to read.

These knowledge difficulties relate to the target language's topic, a lack of motivation to read, a general lack of reading culture, and a lack of appropriate reading strategies or the independence of only a few (such as relying heavily on prediction/guessing strategies). This study sought to assess students' awareness of their reading techniques as it is one key to effective instruction, allowing teachers to discover clues about what students are not doing or are doing incorrectly, allowing them to introduce strategies that are on the "leading edge" of each learner's reading proficiency. The abilities and tactics we teach are not based on students' inherent "smarts," but on their opportunity to learn and practice these talents in a positive learning environment. This study's objective was to identify the tactics used by EFL university students at Muhammadiyah University to complete their reading assignments and activities by examining their awareness of and perceptions of their use of reading strategies. A particular focus was placed on the sixth and eighth-semester students. What reading methods are employed by EFL students in their academic

setting, According to this study's research question? In order to use their knowledge and reasoning abilities in practical situations, students must learn to be conscious of their meta-cognition. Remembering that meta-cognition involves being aware of and controlling one's cognitive processes is crucial. Metacognition has been characterized as cognition about cognition. (Zohar, 2004). Reading strategies are problem-solving techniques used by readers to cope with reading texts. The reading research literature is divided on what constitutes reading strategies. Individuals with meta-cognitive awareness, on the other hand, are aware of their own cognitive processes. Metacognitive knowledge and behaviors, such as goal formulation, planning, and strategy selection and adaptation, are required to meet the standards of scientific literacy. The metacognitive approach can be applied differently by low performers to produce high performers, which students must apply to enhance their reading competence (Aziz & Nasir, 2019).

Literature Review

Numerous studies in the literature demonstrate that meta-cognitive awareness is an essential element of learning science because it helps people to regulate their cognitive skills and assess task performance scientifically appropriately (Wu et al., 2019). The Participants' scores on the Reading Visual Understanding, Reading Self-Regulation, and Reading The Metacognitive Awareness of Reading Strategies, Problem Solving Strategies, and Supporting Reading Strategies self-confidence subscales are all positively affected. In other words, eighth-grade students' evaluations of their reading comprehension skills are influenced by their meta-cognitive grasp of reading strategies. Meta-cognitive techniques are "high-order executive skills that use knowledge of cognitive processes and constitute an attempt to regulate one's learning through planning, monitoring, and evaluating," according to Tavakoli (2014) (Bria & Mbato, 2019). People might be aware of particular reading techniques but have yet to be able to apply them when reading for academic purposes. Perhaps they were more concerned with finishing the work than comprehending or appreciating the importance of these reading tactics (Sheikh et al., 2019).

Method

The case study focuses on an investigation of a specific phenomenon in its natural environment. They were related to academic reading techniques. The findings of this study indicate that emphasizing three essential components of reading instruction—global reading, problem-solving, and support reading strategies—will be beneficial. —can improve academic

accomplishment. In the fourth and sixth semesters of the two universities, 141 students were chosen at random, both students at Muhammadiyah University and students from Samarkand State Institute of Foreign Language, who participated actively and purposively selected the third-level students to be participants. The data collection process involved global problem-solving and supported reading strategies used in academic reading. We also examine the Marsi reading strategies as the primary purpose of this study. Student-level variables were the two most likely predictors of reading comprehension, among the essential components being gender, autonomous reading motivation, controlled reading motivation, and metacognitive awareness of reading strategies (MARS) and autonomous reading motivation.

The implications for future research, policymaking, and reading instruction improvement are highlighted (Wu et al., 2019). During the spring semester, from April 3 to 12, 2023, students from Makassar State University, Muhammadiyah University, and Samarkand State Institute of Foreign Languages, all in Uzbekistan, employed metacognitive techniques to improve their reading comprehension. This study examined how different student groups, undergraduate and graduate, used differently. Students' metacognitive understanding of reading techniques is measured on a five-point scale by the words global strategies (GLOB), support strategies (SUP), and problem-solving strategies (PROB). With corresponding Cronbach's alphas of .52 for GLOB, .60 for PROB, and .66 for SUP, the three subscales (GLOB, SUP, and PROB) in the current study all exhibited adequate to good internal consistency coefficients. Internal consistency was .28 overall. Data analysis and descriptive statistics were computed to confirm the credibility of each MARS description. This section explains the research approach, study subjects, procedures, materials and tools, and data gathering and analysis processes. These are not hypotheses. Formulas that are widely known should not be put down for statistical purposes. Any specific criteria the researcher utilizes in collecting and analyzing study data should be fully documented, including the quality of the instruments, research material, and data collection technique. This part should account for 10% (for qualitative research) or 15% (for quantitative research) of the total body length.

Results and Discussion

Despite the significant interest in the relationship between metacognition and reading, several problems and concerns need to be solved before we can fully comprehend the nature of metacognitive processing techniques and methods as they relate to text comprehension and

reading. This data should be used in designing and implementing an efficient metacognitive reading strategy to raise students' awareness of and application of reading techniques during reading (Mokhtari et al., 2018). The findings of this study corroborate students' perceptions of reading techniques by demonstrating three distinct MARSII criteria: global reading techniques (GRS), problem-solving strategies (PSS), and support reading strategies (SRS). The sum of the scale scores for the three reading strategy categories is used to grade the 15 strategies in the MARSII-R on a scale of 1 to 5. Consider your composite score—which can be created by adding the scores of all strategy components—and apply it to all reading strategies to ascertain your level of awareness. The significant discovery is shown in the following table, which is in table format:

Global Reading Strategies (GRS)

Figure 1.

1. Having a purpose in mind when I reading.

96 jawaban

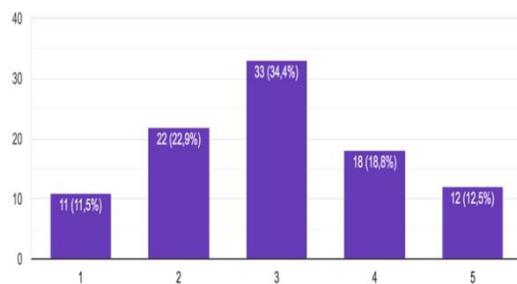
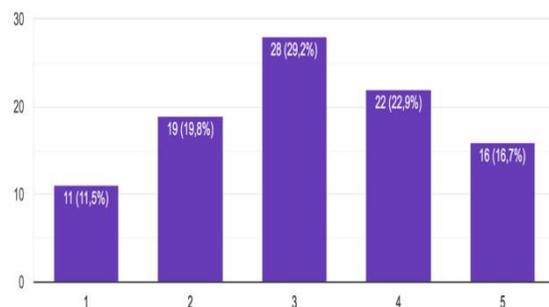


Figure 2.

2. Previewing the text to see what is about before reading.

96 jawaban



As observed, pupils favor strategy scale 3 (34,4%), reading with a goal in mind. Because metacognition is essential in learning situations, students may be better able to regulate their cognitive and learning processes, recognize their areas of strength, and concentrate on those that

call for developing new cognitive talents. Every learner is capable of metacognition, meaning every student can think about learning purpose, even if they have heard the strategies and do not know what it means out of 22 (22,9%). In comparison, 18 (18,8%) have known the strategy can explain how and when to use it, out of 12 (12,5%) frequently use it when reading, and 11 (11,5%) have never heard of the strategy before. Students who are metacognitively aware can outperform their peers because they can organize, control, monitor, and regulate their reading and learning processes, directly affecting their achievement.

In another way, metacognition is a strong predictor and indicator of success (Bagci & Unveren, 2020). One explanation for this phenomenon is that metacognitive knowledge, which underpins reading, represents learners' capacity to adapt to various reading and demand contexts (M. F. Teng & Zhang, 2021). Out of 28 (29,2%) stated that reading a preview of the book to understand its content, some students knew the strategy and how to use it in the actual reading text. I realized how confusing that is for students. Those require two different brain areas in the next session and upon reflection. Out of 29 (30,2%), 29 students have heard and believe they know the reading method checking to determine if the substance of the text suits their reading objective.

Figure 3.

4. Using typographical aids like bold face and italics to pick out key information.
96 jawaban

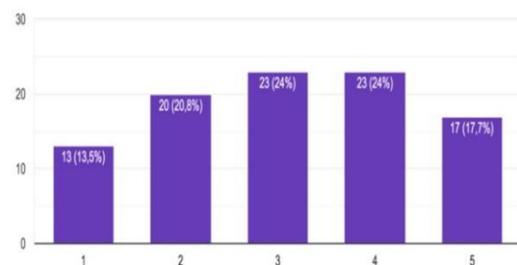
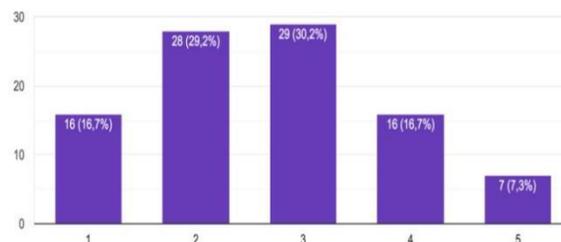


Figure 4.

1. Getting back on track when getting sidetracked or distracted.
96 jawaban

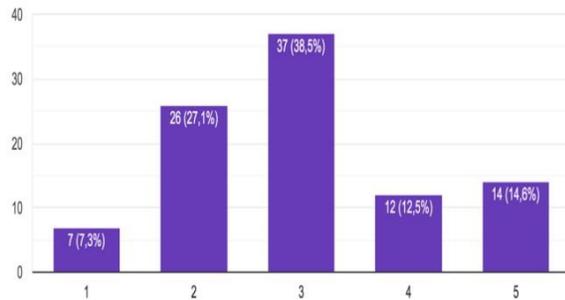


The results demonstrate that metacognition is essential in learning techniques, such as bold and italics, to highlight crucial information, which is the standard approach for explaining the meaning and how to utilize it.

Figure 5.

5. Critically analyzing and evaluating the information read.

96 jawaban



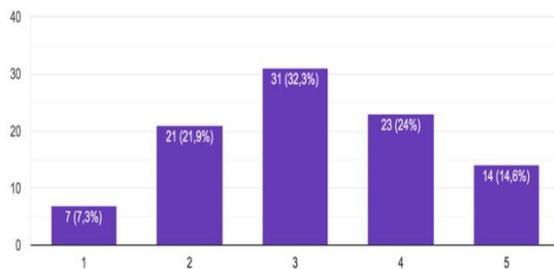
Problem-Solving Strategy

Issue solving is articulating to figure out where it came from, choosing a solution from a list of options, ranking them in order of importance, and putting it into action. In light of this, modifying students' reading speed or pace based on what they have read out of 38 (39,6) explore these concepts further. After doing so, describing and discussing metacognition, why it is essential, and where these strategies are already used in the classroom can help determine how to make metacognition a more intentional component of the reading strategies.

Figure 6.

3. Stopping from time to time to think about what I'm reading.

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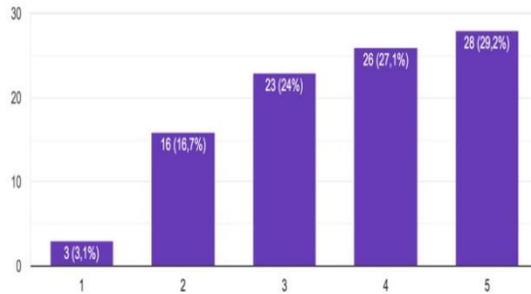


The objective would be to incorporate the development of metacognitive skills into their course objectives, such as taking occasional breaks to reflect on the text's content. Out of 31(32,3%) students who responded that techniques are needed to be better readers, they must pause to think about what might come.

Figure 7.

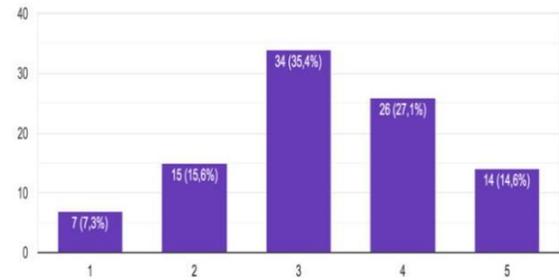
4. Re-reading to make help ensure I understand what I'm reading.

96 jawaban

**Figure 8.**

1. Taking notes while reading.

96 jawaban

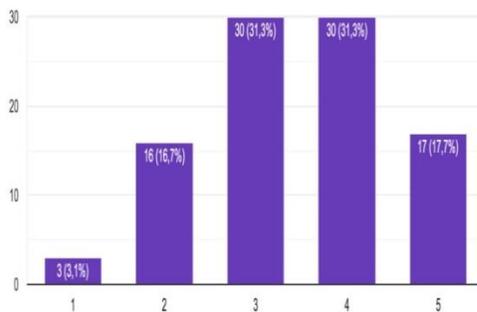


The table above indicates that re-reading helps ensure that what the students have read is a high use of various reading strategies, which earn very high. This means that the issue of reading strategy support receives the highest 28 (29,2%).

Figure 9.

5. Guessing the meaning of unknown words or phrases.

96 jawaban

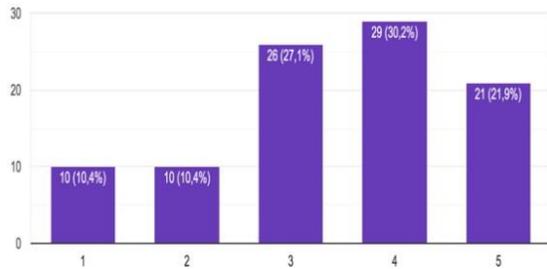


Support Reading Strategies (SRS)

Learning through reading aids in vocabulary and language development. The process of simultaneously extracting and constructing meaning through interaction and involvement with written language according to the concept of reading comprehension out of 30 (931%). In support of the reading technique, out of 34 (35%) people who enjoy taking notes while reading, 26 (27%) do it frequently. Instead of copying material from the text, students would benefit by taking notes in their own words. Keep the emphasis the same. To help kids concentrate more, wait to take notes until the conclusion, and students try to summarize rather than copy.

Figure 10.

2. Reading aloud to help me understand what I'm reading.
96 jawaban



Teachers should encourage reading aloud in their classrooms because 29 students (30,2%) like it to help students understand their reading. Reading aloud to pupils can boost interest, inspire reading, and encourage creativity. Children who are taught the value of oral language early will succeed in reading more quickly.

Figure 11.

3. Discussing what I read with others to check my understanding.
96 jawaban

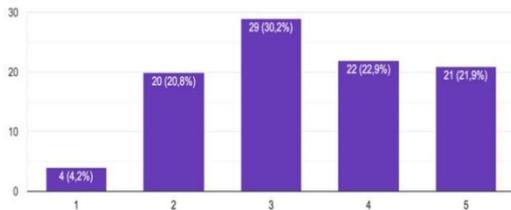
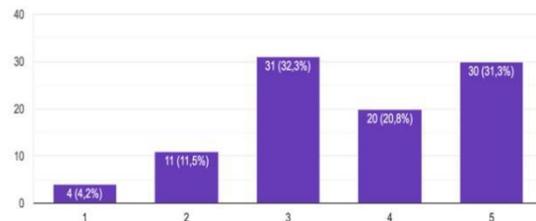


Figure 12.

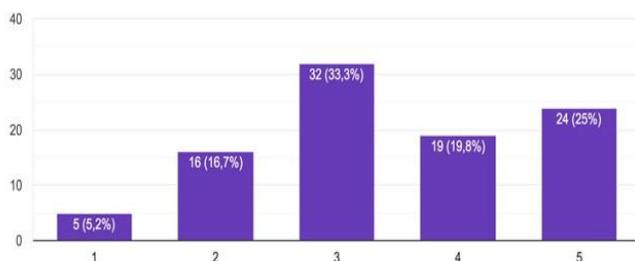
4. Underlining or circling important information in the text.
96 jawaban



As shown in the figure above, 31(32,3%) of the 96 participants said that they typically highlight or circle to get information from the text, 30(31,3%), 20 (20,8%) of the participants said they always employ the strategies that deal with reading techniques. They were largely aware of these strategies, as seen by the low percentages of Never 11(11,5%) and Rarely 4(4,2%), and most participants chose to use them when reading academic literature.

Figure 13.

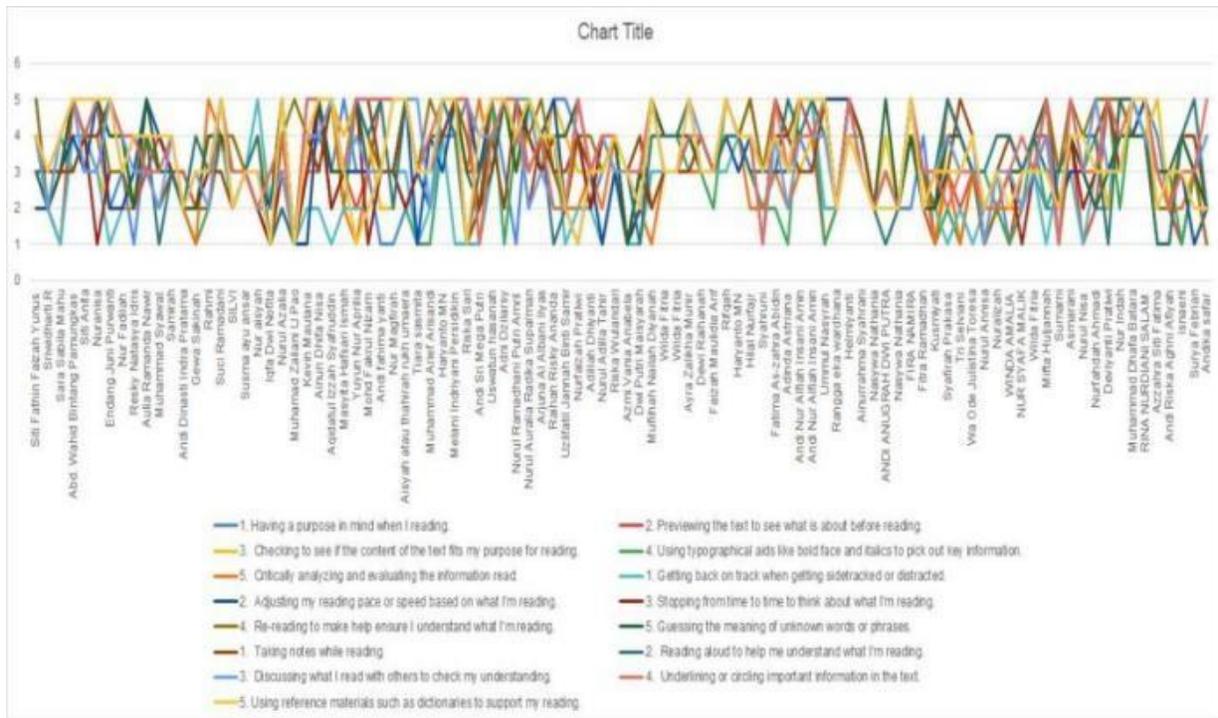
5. Using reference materials such as dictionaries to support my reading.
96 jawaban



Using dictionaries while learning can help pupils read more proficiently. In the reading strategy used when using corpora to organize references, pupils' metacognition knowledge can rise by 32 (33,3%). The three types of reading strategies are issue reading strategies, support reading strategies, and global reading strategies.

Conclusion and Recommendations

It is intended to provide interpretation and meaning to the study's findings by the theories and references employed in teaching reading strategies.



The average shows how often students use reading strategies when reading academic subjects. Which set of reading strategies—global, problem-solving, and support strategies—you use most frequently is determined by the average for each subscale of the inventory. You can assess your level of expertise in each of these approach areas using the data provided. It is crucial to stress that many factors, like your level of English reading proficiency and the sort of content you read, affect how practical these approaches are. Getting poor marks on any of the subscales or areas of the inventory means you might want to learn more about and think about applying some of the reading strategies in these sections.

Furthermore, metacognitive awareness is believed to be a key component of compelling strategic reading, especially academic reading. The current study aimed to ascertain how college students viewed metacognitive exercises connected to academic reading. Thus, using the Survey of

Reading Strategies, it was determined if students employing academic reading, global, problem-solving, and support reading techniques were aware of their metacognition. The findings showed that the participants routinely employed academic reading strategies and were conversant with them.

They generally employed and learned problem-solving methods, but they used supporting strategies the least in academic reading. Most responders generally presented their personal experiences, which could be subjective. However, such points of view are worth considering in order to comprehend broader trends. Data indicate that students have a more favorable experience in regular mode programs and institutions than in distant mode programs and institutions. Regarding learning materials, most respondents preferred regular mode to distance mode, while others welcomed the introduction of dynamic e-learning platforms as a possible chance. There are issues with this that need to be resolved. Future study recommendations linked to pupils' most dominant reading techniques should also be mentioned. The researcher has a vital role in explaining, reading approach, and providing an atmosphere that enables reflective knowledge of what has been explored for all components. Anderson suggests the following components: (1) acquiring preparation and planning knowledge. Students take into account both what they can do and what they need to do to reach their learning objectives. (2) Deciding on and putting into practice learning methodologies. Anderson (2002, p. 3) claims that learners may deliberate and make conscious judgments about the learning process when they have the metacognitive ability to choose and employ specific methods in a given environment for a specified purpose."(3) Tracking the application of a plan. It is essential to teach students how to record the tactics they use. Six categories classify memory, cognitive, metacognitive, social, compensatory, and emotional strategies. From "Never or rarely true of me" to "Always or almost always true of me," the Likert scale has five possible responses. Moreover, it asks students to rate how frequently they employ each approach. A metacognitive understanding of reading strategy significantly impacts the educational process, especially when learning a second language. It is concerned with prospective applications of the techniques still effective for enhancing reading comprehension, in addition to the suggestions they give for how students should structure their interactions with the context.

English language instructors must become more aware of the potential obstacles students may face in achieving their learning objectives, particularly when understanding academic texts. One

exciting aspect of metacognitive strategies is that they can be learned. A reading-intensive curriculum incorporating strategy instruction gives students a more comprehensive learning experience, positions them for academic success, enables the development of critical thinking abilities, and further positions them for competence and success in their future careers. However, because they are ignorant of how to apply reading strategies, when to use them, and which ones to employ, EFL learners still experience metacognitive difficulties—awareness of reading techniques. In addition, by modeling these methods and offering plenty of opportunities for guided and independent practice, teachers can utilize teaching metacognitive reading strategies to supplement their instruction in reading comprehension. Students will become independent readers if prepared to take on any printed content (Kung & Aziz, 2020). As a result, the current study attempts to pinpoint the link between EFL learners' metacognitive awareness of reading techniques and reading comprehension.

Despite the significant interest in the relationship between metacognition and reading, several problems and concerns need to be solved before we can fully comprehend the nature of metacognitive processing techniques and methods as they relate to text comprehension and reading. This data should be used in designing and implementing an efficient metacognitive reading strategy to raise students' awareness of and application of reading techniques during reading (Mokhtari et al., 2018). The findings of this study corroborate students' perceptions of reading techniques by demonstrating three distinct MARS criteria: global reading techniques (GRS), problem-solving strategies (PSS), and support reading strategies (SRS). The sum of the scale scores for the three reading strategy categories is used to grade the 15 strategies in the MARS-R on a scale of 1 to 5. Consider your composite score—which can be created by adding the scores of all strategy components—and apply it to all reading strategies to ascertain your level of awareness. The significant discovery is shown in the following table:

REFERENCES

- Acar-Erdol, T., & Akin-Arikan, Ç. (2022). Gender gap in reading achievement: the mediating role of metacognitive strategies and reading-related attitudes. *Social Psychology of Education, 25*(2-3), 537-566.
- Adaba, H. W. (2021). Metacognitive Reading Strategy Direct Instruction Effects on Students' Metacognitive Reading Strategy Awareness and Their Perceptions of Metacognitive

- Reading Strategy Instruction at Guder Secondary School Grade 11 in Oromia, Ethiopia. *Turkish Journal of Computer and Mathematics Education (TURCOMAT)*, 12(12), 3095-3104.
- Algraini, F. N. (2022). The relationship between EFL students metacognitive reading strategies and emotional intelligence. *International Journal of English Language and Literature Studies*, 11(1), 42-56.
- Ali, A. M., & Razali, A. B. (2019). A review of studies on cognitive and metacognitive reading strategies in teaching reading comprehension for ESL/EFL learners. *English Language Teaching*, 12(6), 94. <https://doi.org/10.5539/elt.v12n6p94>
- Al-Kiyumi, O., Seyabi, F. A., & Hassan, A. H. (2021). An empirical study on the effect of instruction on metacognitive strategies on EFL reading comprehension: The case of foundation-level students in Oman. *International Education Studies*, 14(8), 30-42.
- Ambarita, R., Kristiana, V., & Dewi, R. S. (2022). The effect of metacognitive strategy to improve reading ability of the students in Stie Alwashliyah Sibolga. *Project (Professional Journal of English Education)*, 5(1), 195-199.
- Andriani, E., & Mbato, C. L. (2021). Male and female Indonesian EFL undergraduate students' metacognitive strategies in academic reading: planning, monitoring and evaluation strategies. *Journal on English as a Foreign Language*, 11(2), 275-296.
- Anjomshoaa, L., Golestan, S., & Anjomshoaa, A. (2012). The influences of metacognitive awareness on reading comprehension in Iranian English undergraduate students in Kerman, Iran. *International Journal of Applied Linguistics and English Literature*, 1(6), 193-198.
- Aşıkcan, M., & Saban, A. (2018). Prospective teachers' metacognitive awareness levels of reading strategies. In *Cypriot Journal of Educational Sciences* (Vol. 13, Issue 1). www.cjes.eu
- Aygün, H. E., & Tunçer, B. K. (2021). Investigation of the relationship between reading habits and metacognitive reading strategies of prospective teachers. *International Journal of Psychology and Educational Studies*, 8(4), 152-165.
- Aziz, Z. A., & Nasir, C. (2019). Teaching & Literature ISSN. *A Journal of Culture*, 19(1). <https://doi.org/10.24167/celt.v19i1>
- Bagci, H., & Unveren*, D. (2020). Investigation of the relationship between metacognitive awareness of reading strategies and self-efficacy perception in reading comprehension in mother tongue: Sample of 8th graders. *International Journal of Educational Methodology*,

- 6(1), 83–98. <https://doi.org/10.12973/ijem.6.1.83>
- Babashamasi, P., Kotamjani, S. S., & Noordin, N. B. (2022). The effect of explicit training of metacognitive reading strategies on online reading comprehension. *Arab World English Journal*.
- Babashamasi, P., Noordin, N. B., & Kotamjani, S. S. (2022). The effect of teaching metacognitive reading strategies on the critical thinking skills of undergraduate students. *International Journal of Applied Linguistics and English Literature*, 11(2), 65-71.
- Bagri, G., & Dickinson, L. (2023). The role of metacognitive reading strategies and trait anxiety in critical thinking for a verbalreasoning task. *ReadingPsychology*, 44(1), 75-94.
- Berenji, S. (2021). Enhancing metacognitive scaffolding and comprehension ability through problem-based learning in an EFL context. *Education Research International*, 2021, 1-9.
- Bozgun, K., & Can, F. (2023). The associations between metacognitive reading strategies and critical reading self-efficacy: mediation of reading motivation. *International Journal on Social & Education Sciences (IJonSES)*, 5(1).
- Bouali, A. (2022). Exploring the metacognitive reading strategy awareness in promoting students' readingcomprehension skills. *Global Journal of Foreign Language Teaching*, 12(4), 203-212
- Bria, M. G., & Mbato, C. L. (2019). Metacognitive strategies of undergraduate and postgraduate students in reading. *LLT Journal: A Journal on Language and Language Teaching*, 22(2), 182–197. <https://doi.org/10.24071/llt.v22i2.1779>
- Dardjito, H. (2019). Students' metacognitive reading awareness and academic English reading comprehension in EFL context. *International Journal of Instruction*, 12(4), 611–624. <https://doi.org/10.29333/iji.2019.12439a>
- Deliany, Z., & Cahyono, B. Y. (2020). Metacognitive reading strategies awareness and metacognitive reading strategies use of EFL university students across gender. *Studies in English Language and Education*, 7(2), 421–437. <https://doi.org/10.24815/siele.v7i2.17026>
- Deliligka, A., & Calfoglou, C. (2022). Using poetry to foster Critical Thinking and Metacognition in a Primary School EFL context. *Research Papers in Language Teaching and Learning*, 12(1), 167-187.
- Dewi, L. N. A., & Endarto, I. T. (2022). Metacognitive reading strategies and L2 reading

- achievements: A correlational study of EFL in Indonesia. *Al-Lisan: Jurnal Bahasa (e-Journal)*, 7(2), 129-144.
- Erenler, S., & Cetin, P. S. (2019). Utilizing argument-driven inquiry to develop pre-service teachers' metacognitive awareness and writing skills. *International Journal of Research in Education and Science*, 5(2), 628–638.
- Fitrisia, D., Tan, K. E., & Yusuf, Y. Q. (2015). Investigating metacognitive awareness of reading strategies to strengthen students' performance in reading comprehension. *Asia Pacific Journal of Educators and Education*, 30(1), 15-30.
- Haukås, Å., Bjørke, C., & Dypedahl, M. (2018). Metacognition in language learning and teaching. In *Metacognition in Language Learning and Teaching*.
<https://doi.org/10.4324/9781351049146>
- Hong-Nam, K., & Page, L. (2014). Investigating metacognitive awareness and reading strategy use of EFL Korean university students. *Reading Psychology*, 35(3), 195-220.
- Kalita Nath, P. (2021). The effect of planned instruction on metacognitive awareness of reading strategies. *LEARN Journal: Language Education and Acquisition Research Network*, 14(2), 194-221.
- Khan, M. J., & Rasheed, S. (2019). Moderating role of learning strategies between meta-cognitive awareness and study habits among university students. *Pakistan Journal of Psychological Research*, 34(1), 215–231. <https://doi.org/10.33824/PJPR.2019.34.1.12>
- Khellab, F., Demirel, Ö., & Mohammadzadeh, B. (2022). Effect of teaching metacognitive reading strategies on reading comprehension of engineering students. *SAGE Open*, 12(4), 21582440221138069.
- Köse, N., & Günes, F. (2021). Undergraduate students' use of metacognitive strategies while reading and the relationship between strategy use and reading comprehension skills. *Journal of Education and Learning*, 10(2), 99-108.
- Kung, L. Y., & Aziz, A. A. (2020). An action research on metacognitive reading strategies instruction to improve reading comprehension. *International Journal of English Language and Literature Studies*, 9(2), 86–94. <https://doi.org/10.18488/journal.23.2020.92.86.94>
- Larsari, V. N. Writing teaching: cognitive/metacognitive reading strategies, metacognitive awareness writing, writing apprehension In *Focus*.
- Levchyk, I., Chaikovska, H., Mazur, O., & Zakordonets, N. (2022). The impact of metacognitive reading strategies on master students' EFL reading proficiency and academic

- achievement. *Acta Paedagogica Vilnensia*, 48, 26-46
- Little, T. D. (2013). *Multiple-Group Models* copyright The Uilford Press. 209–245.
- Loppies, H. J., & Lekatompessy, J. (2021). Developing L2 learners' metacognitive strategies through reading group activities. *HUELE: Journal of Applied Linguistics, Literature and Culture*, 1(1), 33-40.
- Lu, P., Schroeder, S., Burris, S., Rayfield, J., & Baker, M. (2022). The effectiveness of a metacognitive strategy during the reading process on cognitive allocation and subject matter retention. *Journal of Agricultural Education*, 63(2).
- Mohd Ramli, N. F. (2021). ESL learners use learning management system features and metacognitive online reading strategies. *Creative Practices in Language Learning and Teaching (CPLT)*, 9(1), 129-152.
- Mokhtari, K., Dimitrov, D. M., & Reichard, C. A. (2018). Revising the metacognitive awareness of reading strategies inventory (MARSII) and testing for factorial invariance. *Studies in Second Language Learning and Teaching*, 8(2 Special Issue), 219–246. <https://doi.org/10.14746/ssllt.2018.8.2.3>
- Muhid, A., Amalia, E. R., Hilaliyah, H., Budiana, N., & Wajdi, M. B. N. (2020). The effect of metacognitive strategies implementation on students' reading comprehension achievement. *International Journal of Instruction*, 13(2), 847–862. <https://doi.org/10.29333/iji.2020.13257a>
- Mustajab Ahmed, R. (2020a). Investigating EFL learners' awareness of cognitive and metacognitive reading strategies of students in different disciplines. *Arab World English Journal*, 11(3), 294–304. <https://doi.org/10.24093/awej/vol11no3.18>
- Nahar, J., & Mallik, S. (2022). Metacognitive awareness in the reading comprehension of literary texts: An experimental study based on metacognitive strategy. *European Journal of English Language Teaching*, 7(1).
- Navarro, Z. I. T. (2021). Metacognitive strategies for reading comprehension in primary education students. *Asian Journal of Education and Social Studies*, 14(4), 34-46.
- Razkane, H., & Diouny, S. (2022). Cognitive retroactive transfer of metacognitive reading strategies from English (L3) into French (L2) among trilingual learners. *International Journal of Multilingualism*, 1-24.
- Razkane, H., Sayeh, A. Y., Diouny, S., & Yeou, M. (2023). Eleventh-grade students use metacognitive reading strategies in Arabic (L1) and English (L3). *International Journal of*

Instruction, 16(1), 573-588.

- Rianto, A. (2022). Assessing metacognitive online reading strategy usage among EFL teachers in Indonesia. *3L: Southeast Asian Journal of English Language Studies*, 28(3).
- Sheikh, I., Ahmed Soomro, K., & Hussain, N. (2019). Reading Practices and Academic Attainments of University Students. *Article Journal of Education and Educational Development Metacognitive Awareness of Reading Strategies*, (Vol. 6, Issue 1).
- Shehzad, M. W., Hussain, I., Akhtar, A., & Fatima, S. (2021). Self-Efficacy sources, reading self-efficacy, metacognitive reading strategies, and reading comprehension performance: A correlational study in Saudi EFL context. *International Journal of Innovation in Teaching and Learning (IJITL)*, 7(2), 19- 35.
- Siyaya, M. C. (2022). Information literacy and metacognitive abilities of teachers: Case of a South African Rural School. *International Journal of Education and Literacy Studies*, 10(1), 173. <https://doi.org/10.7575/aiac.ijels.v.10n.1p.173>
- Sulistiyawati, E. E., & Mbato, C. L. (2022). Confronting the difficult challenges of academic reading of Indonesian graduate students through the lens of self-efficacy and metacognitive strategies. *Journal on English as a Foreign Language*, 12(1), 49-73.
- Talwar, A., Magliano, J. P., Higgs, K., Santuzzi, A., Tonks, S., O'Reilly, T., & Sabatini, J. (2023). Early academic success in college: Examining the contributions of reading literacy skills, metacognitive reading strategies, and reading motivation. *Journal of College Reading and Learning*, 53(1), 58-87
- Teng, F., & Reynolds, B. L. (2019). Effects of individual and group metacognitive prompts on EFL reading comprehension and incidental vocabulary learning. *PLoS ONE*, 14(5). <https://doi.org/10.1371/journal.pone.0215902>
- Teng, M. F., & Zhang, L. J. (2021). Development of children's metacognitive knowledge, reading, and writing in English as a foreign language: Evidence from longitudinal data using multilevel models. *British Journal of Educational Psychology*, 91(4), 1202–1230. <https://doi.org/10.1111/bjep.12413>
- T Yaghi, E. (2021). The impact of metacognitive online reading strategies on the online reading disposition of Saudi EFL learners. *Arab World English Journal (AWEJ) Special Issue on Covid*, 19.
- Villanueva, J. M. (2022). Language profile, metacognitive reading strategies, and reading comprehension performance among college students. *Cogent Education*, 9(1), 2061683.

- Widiyarsi, E., Mujib, M., Suherman, S., Komarudin, K., Anggoro, B. S., & Mardiyah, M. (2022). CORE teaching model based mnemonic technique impact students' mathematical creative thinking ability and metacognitive awareness. *AlphaMath : Journal of Mathematics Education*, 8(1), 49. <https://doi.org/10.30595/alphamath.v8i1.13327>
- Wu, L., Valcke, M., & Van Keer, H. (2019). Factors associated with reading comprehension of secondary school students. *Educational Sciences: Theory and Practice*, 19(4), 34–47. <https://doi.org/10.12738/estp.2019.4.003>