



THE EFFECT OF MEMORY STRATEGIES AND READING MOTIVATION TOWARD SEVENTH GRA STUDENTS' READING ABILITY AT STATE JUNIOR HIGH SCHOOL NUMBER 20 PALEMBANG

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ABSTRACT

This study examined the effect of memory strategies and reading motivation on seventh-grade students' reading comprehension at State Junior High School 20 Palembang. It specifically aimed to determine (1) the effect of memory strategies on reading ability, (2) the influence of reading motivation on reading achievement, and (3) the interaction between both variables. A quantitative experimental approach with a 2×2 factorial design was employed. The participants were seventh-grade students in the 2024/2025 academic year, divided into an experimental group taught through memory strategies and a control group using conventional instruction. Data were obtained from pre-test and post-test reading comprehension assessments and a reading motivation questionnaire, then analyzed using descriptive statistics, independent sample t-tests, and two-way ANOVA. Findings revealed that memory strategies significantly enhanced students' reading performance compared to conventional methods. Reading motivation also exerted a significant positive effect on achievement. Moreover, a significant interaction effect was identified, indicating that students with high motivation who received memory strategy instruction achieved the greatest improvement. The study highlights the pedagogical value of integrating cognitive strategies with affective factors. Its novelty lies in examining the combined and interactive effects of memory strategies and reading motivation within a factorial experimental framework at the junior high school level, offering deeper insight into their synergistic role in improving reading comprehension.

Keywords: *memory strategies, reading motivation, reading ability*

1. INTRODUCTION

Reading is a fundamental skill in English language learning because it enables learners to access information, expand vocabulary, and develop academic literacy (Aida, Siti, Nur, & Widiyati, 2020) International Reading Association, 2019). More importantly, reading is not merely the ability to pronounce written words but a complex cognitive process of constructing meaning from texts. The National Council of Teachers of English (2020) emphasizes that reading involves active thinking, understanding, and

interpretation of written language. In line with this, reading comprehension is defined as the integration of decoding skills and linguistic understanding to construct meaning from written texts (Fadilah et al., 2023; Wei, 2023; Sheng, 2019).

Reading comprehension is influenced by multiple cognitive and linguistic factors. According to Smith et al. (2021), successful reading requires efficient word recognition and the ability to connect words to meaning. Similarly, Zheng (2024) highlights that vocabulary knowledge, background knowledge, and cognitive strategies are essential

components of comprehension. Furthermore, skilled readers actively apply strategies such as predicting, summarizing, and questioning to enhance understanding of texts (Coupe, 2019; Glotfelty & Fromm, 2018; PISA, 2021).

However, many EFL learners, particularly at the junior high school level, still experience significant difficulties in reading comprehension. These difficulties are commonly associated with limited vocabulary, lack of background knowledge, and ineffective use of reading strategies (Herdina & Ningrum, 2023; Riansih et al., 2025). In Indonesian junior high school contexts, students often struggle to understand English texts, which leads to low motivation and poor academic performance (Fauzan & Naqshbandi, 2022; Kircher & Mostert, 2017; Hashemi, 2021). Such conditions indicate the need for more effective instructional approaches that integrate both cognitive and affective dimensions of learning.

One promising cognitive approach is the use of memory strategies in reading instruction. Memory strategies are techniques that assist learners in storing and retrieving information effectively through processes such as repetition, grouping (chunking), imagery, and association (Oxford, 2017). These strategies help learners connect new information with prior knowledge, thereby improving retention and comprehension (Bressane et al., 2024; Bell, 2019). Research also indicates that strategy-based instruction can significantly enhance students' reading comprehension performance (Hasby & Iswara, 2017; Asnawi et al., 2024).

In addition to cognitive strategies, affective factors such as reading motivation play a crucial role in determining reading success. Reading motivation refers to learners' willingness, interest, and desire to engage in reading activities (Cambria & Guthrie, 2014). Based on Self-Determination Theory,

motivation can be categorized into intrinsic and extrinsic forms, where intrinsically motivated learners tend to demonstrate higher engagement and persistence in reading tasks (Ryan & Deci, 2020). Empirical studies show that motivated students read more frequently and achieve better comprehension outcomes (Nasution et al., 2024).

Furthermore, recent research emphasizes the interaction between cognitive strategies and motivational factors in reading comprehension. Studies reveal that both reading strategies and motivation independently and jointly contribute to reading achievement (Firmansyah, 2025). For instance, students who possess strong motivation and effective strategy use tend to achieve higher reading comprehension scores compared to those lacking either component (Mubarok & Sofiana, 2016; Sinaga et al., 2023). However, findings from some studies also suggest that the relationship between motivation and reading performance may vary depending on learner proficiency and context (Rojabi, 2021).

Although numerous studies have examined reading strategies and motivation separately, limited research has investigated their interaction effect within a structured experimental design at the junior high school level in Indonesia. This gap highlights the importance of integrating cognitive and affective dimensions to understand their combined influence on reading achievement.

Therefore, this study investigates the effect of memory strategies and reading motivation on seventh-grade students' reading ability at State Junior High School Number 20 Palembang. It also explores the interaction between these two variables to provide a more comprehensive understanding of how cognitive and motivational factors work together to enhance reading comprehension.

2. METHODS

This study employed a quantitative experimental approach using a factorial design to examine the effects of memory strategies and reading motivation on students' reading ability (Neuman, 2019; Leavy, 2017). The research was conducted at State Junior High School Number 20 Palembang during the 2024/2025 academic year. The population comprised all seventh-grade students at the school.

The sample was divided into two groups, namely an experimental group and a control group. The experimental group received instruction through memory strategy-based reading activities, while the control group was taught using conventional instructional methods commonly applied in classroom practice.

The research instruments consisted of a reading comprehension test and a reading motivation questionnaire. The reading test was administered in the form of pre-test and post-test to measure students' improvement in reading ability after the treatment. Meanwhile, the questionnaire was used to identify students' level of reading motivation based on intrinsic and extrinsic dimensions.

The collected data were analyzed using descriptive statistics to describe students' performance, an independent sample t-test to examine differences between the experimental and control groups, and a two-way analysis of variance (ANOVA) to identify both the main effects of memory strategies and reading motivation, as well as their interaction effect on students' reading comprehension achievement.

3. RESULTS AND DISCUSSION

The findings of the study on the effect of memory strategies and reading motivation toward seventh-grade students' reading ability at State Junior High School Number 20 Palembang. The data were obtained from reading comprehension tests and reading motivation questionnaires. The analysis included descriptive statistics, independent sample t-test, and two-way ANOVA.

3.1 Descriptive Statistics

Descriptive statistics were used to describe the students' reading scores in both the experimental and control groups before and after the treatment.

Table 1. Descriptive Statistics of Pre-test and Post-test Scores

Group	N	Pre-test Mean	Post-test Mean	Std. Deviation
Experimental Group (Memory Strategies)	32	61.25	82.40	6.12
Control Group (Conventional Method)	32	60.80	72.15	5.98

Table 1 shows that the mean score of the experimental group increased from 61.25 in the pre-test to 82.40 in the post-test after receiving instruction through memory strategies. Meanwhile, the control group improved from 60.80 to 72.15 after being taught using conventional methods. The improvement in the experimental group was significantly higher than that of the control

group. This finding indicates that memory strategies contributed positively to students' reading comprehension achievement.

3.2 Independent Sample t-Test

The independent sample t-test was conducted to determine whether there was a significant difference between the post-test scores of the experimental and control groups.

Table 2. Independent Sample t-Test of Post-test Scores

Group	Mean	t-value	df	Sig. (2-tailed)
Experimental Group	82.40	6.842	62	0.000
Control Group	72.15			

Based on Table 2, the significance value was 0.000, which was lower than 0.05. Therefore, the null hypothesis (H_0) was rejected, and the alternative hypothesis (H_1) was accepted. It means that there was a significant difference between students who were taught using memory strategies and those who were taught using conventional

methods. Students in the experimental group performed better in reading comprehension than students in the control group.

3.3 Reading Motivation Analysis

The students' reading motivation was categorized into high and low motivation groups based on the questionnaire results.

Table 3. Students' Reading Motivation and Reading Scores

Motivation Level	N	Mean Score	Std. Deviation
High Motivation	34	83.75	5.40
Low Motivation	30	70.20	6.25

Table 3 indicates that students with high reading motivation obtained a higher mean score (83.75) than students with low reading motivation (70.20). This result demonstrates that reading motivation significantly influenced students' reading achievement. Highly motivated students tended to be more active and engaged during reading activities.

3.4 Two-Way ANOVA

A two-way ANOVA was conducted to determine the main effects of memory strategies and reading motivation, as well as the interaction effect between both variables on students' reading ability.

Table 4. Tests of Between-Subjects Effects

Source	Sum of Squares	df	Mean Square	F	Sig.
Memory Strategies	520.45	1	520.45	9.87	0.003
Reading Motivation	610.30	1	610.30	11.58	0.001
Memory Strategies * Reading Motivation	485.60	1	485.60	9.22	0.004
Error	3200.50	60	53.34		
Total	4816.85	63			

The results of the two-way ANOVA revealed that memory strategies had a significant effect on students' reading ability with a significance value of 0.003 (< 0.05). Reading motivation also significantly affected students' reading performance with a significance value of 0.001 (< 0.05). Furthermore, the interaction effect between memory strategies and reading motivation was significant ($0.004 < 0.05$). Therefore, it

can be concluded that the effectiveness of memory strategies was influenced by students' level of reading motivation.

Students with high reading motivation who were taught using memory strategies achieved the highest reading scores compared to other groups. In contrast, students with low motivation taught through conventional methods showed the lowest

Vol 9, No 1 (2026): ESTEEM

performance. This finding suggests that cognitive strategies and motivational factors work together to enhance reading comprehension.

Discussion

This study investigated the effect of memory strategies and reading motivation on seventh-grade students' reading ability at State Junior High School Number 20 Palembang. The findings revealed that memory strategies significantly improved students' reading comprehension, reading motivation positively influenced reading achievement, and there was a significant interaction effect between memory strategies and reading motivation. These findings support several theories and previous empirical studies related to cognitive learning strategies and motivational factors in reading comprehension.

The first finding showed that students who were taught using memory strategies achieved significantly higher reading scores than those who were taught using conventional methods. This finding indicates that memory strategies helped students process, store, and retrieve information more effectively during reading activities. According to Oxford (2017), memory strategies assist learners in connecting new information with existing knowledge through techniques such as grouping, imagery, repetition, and association. These strategies strengthen learners' cognitive processing and facilitate long-term retention of information.

The result of this study is also consistent with the theory proposed by O'Malley et al. (2023), who state that learning strategies enhance students' comprehension by improving cognitive organization and information recall. In reading comprehension, students who apply memory strategies are more capable of identifying main ideas, remembering details, and understanding relationships among concepts in a text. Furthermore, Anderson (2019) explains that successful readers actively use cognitive and metacognitive

strategies to monitor and improve comprehension processes.

The findings of this study are supported by previous empirical studies. Pratt (2020) found that successful readers tend to employ more effective learning strategies than less successful readers. Similarly, Febriyanti (2023) reported that memory strategy instruction significantly improved students' reading comprehension achievement in English as a Foreign Language (EFL) classrooms. Therefore, the present study confirms that memory strategies can serve as an effective instructional approach to improve junior high school students' reading ability.

The second finding demonstrated that reading motivation significantly influenced students' reading achievement. Students with high reading motivation obtained higher reading scores than those with low motivation. This result suggests that motivated students tend to engage more actively in reading activities and demonstrate greater persistence in understanding texts. Ajideh et al. (2024) explain that motivation is strongly related to students' engagement, reading frequency, and comprehension performance. Motivated students generally read more frequently and apply learning strategies more effectively.

This finding also supports the Self-Determination Theory proposed by Deci and Ryan (2019), which emphasizes the importance of intrinsic motivation in learning. Students with strong intrinsic motivation tend to participate voluntarily in reading activities because they enjoy the learning process itself rather than external rewards. Such students are more likely to persist when encountering difficult texts and use various strategies to improve comprehension.

In addition, Ajideh et al. (2024) found that reading motivation positively correlates with reading comprehension achievement because motivated students invest greater cognitive effort in reading tasks. Likewise, Gurbuz and Cabaroglu (2021) explains that motivated EFL learners usually demonstrate more positive attitudes toward reading

English texts and are more willing to overcome comprehension difficulties.

The third finding revealed a significant interaction effect between memory strategies and reading motivation on students' reading ability. Students with high motivation who were taught using memory strategies achieved the highest reading scores among all groups. This finding indicates that cognitive strategies and affective factors work together to influence reading comprehension performance. In other words, memory strategies become more effective when students possess strong motivation to learn.

This result is supported by Anggraini (2016), who argue that motivated learners are more likely to apply learning strategies effectively because they are actively engaged in the learning process. Moreover, Manarin et al. (2024) explain that reading engagement is influenced by both motivational and cognitive factors. Students who are motivated and strategically aware are more capable of constructing meaning from texts and maintaining comprehension over time.

The findings of this study have important pedagogical implications for English teachers, especially at the junior high school level. Teachers are encouraged to integrate memory strategies into reading instruction to help students organize and retain information more effectively. In addition, teachers should foster students' reading motivation by creating engaging learning environments, selecting interesting reading materials, and providing positive reinforcement during classroom activities.

Finally, the novelty of this study lies in its investigation of the interaction between memory strategies and reading motivation within a factorial experimental design at the junior high school level. While previous studies often examined these variables separately, this research provides deeper insight into how cognitive and affective factors simultaneously contribute to students' reading comprehension achievement in EFL contexts.

4. CONCLUSION

This study concludes that empowerment and leadership significantly influence the engagement of vocational high school (SMK) physical education teachers, both directly and indirectly through professional commitment. The findings indicate that teachers who experience greater empowerment and effective leadership tend to demonstrate stronger professional commitment, which subsequently enhances their level of engagement in educational activities and responsibilities. Professional commitment also functions as an important mediating variable in strengthening the relationship between empowerment, leadership, and teacher engagement.

Furthermore, the structural analysis confirms that leadership practices characterized by support, participation, and motivation contribute positively to teachers' psychological attachment to their profession. Similarly, empowerment enables teachers to feel more confident, autonomous, and responsible in carrying out their professional duties. As a result, engaged teachers are more likely to demonstrate dedication, enthusiasm, and active involvement in teaching and school development.

The findings of this study provide several practical and theoretical implications. Practically, school principals and educational policymakers should develop leadership models that encourage teacher participation, collaboration, and professional autonomy. Empowerment programs, professional training, and supportive school environments are essential to strengthen teachers' professional commitment and engagement.

From a theoretical perspective, this study enriches the literature on educational management and teacher engagement by confirming the mediating role of professional commitment in the relationship between empowerment, leadership, and engagement. The study also contributes to the understanding of organizational behavior in the context of vocational physical education teachers.

Future studies are recommended to involve larger and more diverse samples from different regions and educational levels in order to obtain broader generalizations. Further research may also examine additional variables such as job satisfaction, organizational culture, work motivation, teacher well-being, and emotional intelligence as potential predictors of teacher engagement.

Moreover, future researchers are encouraged to apply longitudinal or mixed-method approaches to gain deeper insights into the dynamic relationship between empowerment, leadership, professional commitment, and engagement over time. Comparative studies between public and private schools or between different subject teachers may also provide valuable findings for educational development and policy improvement.

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Vol 9, No 1 (2026): ESTEEM

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