



Cognitive Strategies Used by High School Students in the While-Reading Phase of English Learning

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Article Info	Abstract
Article History Received: 2025-05-13 Revised: 2025-06-23 Published: 2025-07-09 Keywords: <i>Learning Media; Capcut Media; Learning Motivation; Economics.</i>	This study explores the cognitive while-reading strategies used by eleventh-grade students at SMA Negeri 9 Palangka Raya in their English reading comprehension. A total of 20 students participated in the study, completing a questionnaire based on Bezci's (1998) model of cognitive reading strategies. The results indicate that students most frequently employed strategies such as relating the text to background knowledge, guessing word meanings from context, and considering surrounding sentences to infer meaning. Less frequently used strategies included thinking aloud during reading and skipping unknown words. These findings suggest that cognitive strategies play a crucial role in enhancing reading comprehension, and that teachers should focus on promoting the use of these strategies to improve students' reading skills. The study contributes to the understanding of reading strategies in EFL contexts and provides practical implications for English language instruction.
Artikel Info	Abstrak
Sejarah Artikel Diterima: 2025-05-13 Direvisi: 2025-06-23 Dipublikasi: 2025-07-09 Kata kunci: <i>Media Pembelajaran; Media Capcut; Motivasi Belajar; Ekonomi.</i>	Penelitian ini mengeksplorasi strategi kognitif saat membaca yang digunakan oleh siswa kelas sebelas di SMA Negeri 9 Palangka Raya dalam pemahaman bacaan bahasa Inggris mereka. Sebanyak 20 siswa berpartisipasi dalam penelitian ini, dengan mengisi kuesioner berdasarkan model strategi membaca kognitif Bezci (1998). Hasilnya menunjukkan bahwa siswa paling sering menggunakan strategi seperti mengaitkan teks dengan pengetahuan latar belakang, menebak makna kata dari konteks, dan mempertimbangkan kalimat di sekitarnya untuk menyimpulkan makna. Strategi yang jarang digunakan termasuk berpikir keras selama membaca dan melewatkan kata-kata yang tidak dikenal. Temuan ini menunjukkan bahwa strategi kognitif memainkan peran penting dalam meningkatkan pemahaman bacaan, dan bahwa guru harus fokus pada peningkatan penggunaan strategi ini untuk meningkatkan keterampilan membaca siswa. Penelitian ini berkontribusi pada pemahaman strategi membaca dalam konteks EFL dan memberikan implikasi praktis untuk pengajaran bahasa Inggris.

I. INTRODUCTION

Reading has a highly significant and wide influence on human life, and learning to read is a long and difficult journey (Diken, 2020). Reading comprehension is widely recognized as a crucial component in the process of English language acquisition (Zapata et al., 2024). In the context of English as a Foreign Language (EFL) learning, reading is not only a source of information but also a fundamental skill that supports overall language development. According to Grabe and Stoller (2011), reading in a second language is an interactive and complex process that involves both bottom-up decoding and top-down comprehension processes. Furthermore, Anderson (2003) emphasizes that reading is a dynamic process in which the reader interacts with the text to construct meaning, drawing on linguistic knowledge and background experiences.

In today's globalized world, English reading proficiency has become increasingly essential, especially for academic success and access to global information. Reading not only enhances students' language proficiency but also contributes to critical thinking, inferencing, and information-processing abilities (Snow, 2002). As Carrell (1989) notes, reading in a second language is not merely a linguistic challenge but a cognitive one, requiring the coordination of multiple knowledge sources and strategic thinking. Thus, the development of reading comprehension in EFL learners is more than acquiring vocabulary or grammar—it involves training learners to become strategic readers who can extract meaning efficiently and effectively.

Students in secondary education, particularly in government schools, often face several challenges during the English reading

comprehension process. These challenges include insufficient vocabulary, syntactic and lexical difficulties, lack of background knowledge, and ineffective reading strategies (Ahmed et al., 2024). These problems hinder students' ability to grasp the meaning of texts effectively and impact their academic success. As Nation (2001) points out, a minimum threshold of vocabulary knowledge—often estimated at around 95–98% of the words in a text—is necessary for adequate comprehension. Without this, readers are likely to struggle significantly. Moreover, vocabulary development is closely tied to reading, as there is evidence from various L2 contexts that vocabulary can be learned through reading activities as well as other forms of input (Fan, 2023). Krashen (1989) also argues that extensive reading provides rich input that naturally promotes vocabulary acquisition and reading fluency over time.

Additionally, EFL learners often lack exposure to authentic reading materials and receive limited instruction on how to approach texts strategically. This further affects their reading confidence and comprehension ability. Alkhawaldeh (2011) emphasizes that many EFL learners are not taught how to use strategies to aid comprehension, resulting in passive reading habits and overdependence on dictionaries or translation. When learners do not possess or apply the right strategies, even texts within their language level can become challenging. Hence, the development of reading strategies becomes a core aspect of instruction, not only to support comprehension but to cultivate independent and skilled readers.

To overcome these obstacles, researchers and educators emphasize the importance of strategy use in reading. Yousefian (2015) asserts that learners are more likely to succeed in reading when they actively use comprehension strategies. In addition, Paris, Wasik, and Turner (1991) distinguish between cognitive and metacognitive strategies, underlining the need for explicit teaching of both types to foster independent reading skills. Cognitive strategies include activities such as predicting, summarizing, and inferring, while metacognitive strategies involve planning, monitoring, and evaluating one's reading behavior. The effective combination of these strategies leads to more engaged and efficient readers. Moreover, it is important that reading instruction incorporates purposeful activities that promote strategy use and comprehension (Ahmed et al., 2024). In EFL contexts, students are expected to comprehend

texts regardless of the topic or subject matter (Ozek & Civelek, 2006), which further highlights the need for explicit instruction in reading strategies. Pressley and Afflerbach (1995) also stress that skilled readers consistently monitor their understanding, apply fix-up strategies, and adjust their reading according to the text's complexity and purpose.

Among the various phases of reading, the while-reading phase is particularly critical. This is the stage where readers engage with the text, apply strategies such as guessing meaning from context, rereading, and identifying text organization, and construct meaning in real time. These cognitive while-reading strategies serve as effective tools to facilitate comprehension, especially when students encounter difficulties during the reading process. Block (1986) found that proficient readers use a wider range of strategies during reading, including self-questioning, summarizing, and predicting, which help them construct a coherent mental representation of the text. Similarly, Afflerbach, Pearson, and Paris (2008) argue that the use of cognitive strategies during reading not only supports understanding but also promotes retention and transfer of knowledge to new contexts.

Considering the importance of reading comprehension in language learning and the challenges faced by students, this study seeks to explore the cognitive while-reading strategies used by high school students. Specifically, the research aims to answer the following question: *What cognitive strategies are used by high school students in the while-reading phase of English learning?* Furthermore, the objective of the study is to describe the types and frequency of cognitive strategies employed by students during the while-reading phase, providing insight that may guide future instructional practices aimed at improving reading comprehension in EFL classrooms.

II. METHOD

This study adopted a quantitative descriptive research design to explore the use of cognitive while-reading strategies among eleventh-grade students at SMA Negeri 9 Palangka Raya. The goal of employing this design was to quantify the frequency of strategy use and to identify patterns in students' reading behaviors. Quantitative descriptive studies are particularly useful for providing a detailed account of existing phenomena and for revealing tendencies across a population (Creswell, 2014). As Cohen, Manion,

and Morrison (2018) note, such designs are appropriate when researchers aim to describe specific variables, identify frequencies, and establish associations rather than causal relationships.

The participants consisted of 20 eleventh-grade students, selected through purposive sampling. This method was chosen based on the students' availability and willingness to participate, as well as their ongoing engagement with English language learning. All participants had received formal English instruction as part of the national curriculum, ensuring that they had adequate exposure to reading English texts. Purposive sampling, according to Etikan, Musa, and Alkassim (2016), is particularly valuable in educational research when the goal is to gain insight from a specific, information-rich group relevant to the research question.

To collect data, the study utilized a standardized questionnaire developed by Bezci (1998), which was specifically designed to measure cognitive strategies used during the while-reading phase. The questionnaire included 15 items, each rated on a five-point Likert scale ranging from 1 (never) to 5 (always). The instrument was translated into Bahasa Indonesia to ensure comprehensibility and reduce any language barriers that might compromise the reliability of responses. Using translated and culturally adapted instruments is considered essential in cross-language studies to ensure the validity and accuracy of collected data (Brislin, 1970).

The data collection process was carried out during regular English lessons, with the researcher administering the questionnaire after receiving permission from both the school administration and the English teacher. Prior to filling out the questionnaire, students were given a clear explanation of the study's objectives, assured of their anonymity, and informed that the data would be used solely for research purposes. The questionnaires were completed independently, and all 20 returned forms were deemed complete and valid for further analysis.

The responses were analyzed using descriptive statistical techniques, specifically by calculating the mean score for each questionnaire item. This approach enabled the researcher to identify the average frequency of each strategy employed by the students. The interpretation of these mean scores followed a five-level scale: scores from 4.21 to 5.00 indicated strategies used very often, 3.41 to 4.20 signified often, 2.61 to 3.40 represented

sometimes, 1.81 to 2.60 suggested rarely, and 1.00 to 1.80 reflected strategies never used. As McMillan and Schumacher (2010) suggest, descriptive statistics are highly effective in summarizing patterns of behavior and preferences in educational contexts.

This methodological approach was intended not only to capture the strategic habits of students during the reading process but also to provide an empirical basis for evaluating the effectiveness of current instructional practices and potential areas for pedagogical intervention. The results of this analysis are presented and discussed in the subsequent sections.

III. RESULT AND DISCUSSION

A. Result

This section presents the findings of the study based on the students' responses to the 15-item questionnaire measuring cognitive while-reading strategies. The data were analyzed using descriptive statistics, specifically the calculation of the mean score for each item. The interpretation of mean scores follows the scale used in the methodology section.

Table 1. Mean Scores of Students' Cognitive While-Reading Strategies

No	Strategy	Mean Score	Interpretation
1.	Reading without looking up every unknown word in the dictionary	3.65	Often
2.	Using a dictionary for the important words	4.2	Often
3.	Guessing the meaning of a word from the context	4.3	Very Often
4.	Guessing the meaning of a word from the grammatical category	3.55	Often
5.	Remembering a new word by thinking of a situation in which the word might be used	3.4	Sometimes
6.	Skipping some of the unknown words	2.9	Sometimes
7.	Rereading a sentence	4.1	Often
8.	Considering the other sentences in the paragraph to figure out the meaning of a	4.25	Very Often

sentence			
9.	Reading without translating word-for-word	3.2	Sometimes
10.	Having a picture of the events in the text in mind	3.7	Often
11.	Thinking aloud during the reading	2.6	Rarely
12.	Paying attention to words or phrases that show how the text is organized	3.9	Often
13.	Taking notes on the important points of the text	3.3	Sometimes
14.	Making guesses about what will come next based on the information already given	3.85	Often
15.	Relating the text to background knowledge about the topic	4.35	Very Often

The findings of the study indicate that high school students frequently utilize cognitive while-reading strategies during their reading activities. The three most frequently employed strategies were: relating the text to background knowledge about the topic ($M = 4.35$, Very Often), guessing the meaning of a word from the context ($M = 4.30$, Very Often), and considering other sentences in the paragraph to understand meaning ($M = 4.25$, Very Often). These results suggest that students rely heavily on their prior knowledge and contextual cues to aid comprehension. On the other hand, the strategy that was least used by the students was thinking aloud during reading ($M = 2.60$, Rarely). In general, the majority of students reported using cognitive strategies often, with only a few strategies falling into the “sometimes” or “rarely” categories. This pattern reflects an active engagement with texts, particularly through strategies that help resolve comprehension difficulties in real time.

B. Discussion

The findings of this study reveal that high school students at SMA Negeri 9 Palangka Raya actively employ a variety of cognitive while-reading strategies to enhance their comprehension of English texts. The data show that strategies related to contextual

guessing and activating prior knowledge are the most commonly used. These findings underscore the importance of cognitive engagement during reading, which is essential for addressing comprehension difficulties in an English as a Foreign Language (EFL) context.

The most frequently used strategy, “*Relating the text to background knowledge*” ($M = 4.35$), indicates that students actively connect the new information with their existing knowledge frameworks. This result is consistent with the findings of Ahmed et al. (2024) and Carrell and Eisterhold (1983), who emphasized that activating prior knowledge facilitates better text interpretation and supports higher-order comprehension. Schema theory (Rumelhart, 1980) also underlines the role of prior knowledge in interpreting and organizing new information, suggesting that students who can effectively relate text content to their schemas are more likely to construct meaningful representations of the material.

Likewise, the strategies “*Guessing the meaning of words from context*” ($M = 4.30$) and “*Considering surrounding sentences to figure out meaning*” ($M = 4.25$) highlight students’ ability to infer meaning through contextual clues, rather than relying on external tools such as dictionaries. These results support the findings of Ozek and Civelek (2006) and Nation and Coady (1988), who argued that using context to infer meaning is a hallmark of skilled readers. Inferring from context not only aids vocabulary acquisition but also contributes to fluency, as readers are able to maintain momentum rather than interrupting the reading process for clarification.

In contrast, the strategy “*Thinking aloud during reading*” ($M = 2.60$) was reported as the least frequently used. This may reflect a classroom culture that emphasizes silent reading, or a lack of training in verbalizing cognitive processes while reading. Pressley and Afflerbach (1995) suggest that verbal protocols, such as thinking aloud, are essential for promoting metacognitive awareness, which allows learners to monitor and adjust their reading strategies. The infrequent use of this strategy may point to a gap in students’ metacognitive strategy development. Previous studies, such as Zhang and Wu (2009), also reported similar trends, showing that EFL learners often lack awareness of or confidence

in using metacognitive strategies unless explicitly taught.

Similarly, moderate usage of strategies like *"Skipping unknown words"* (M = 2.90) and *"Reading without translating word-for-word"* (M = 3.20) suggests that some students still struggle with tolerating ambiguity and may rely on translation-based reading. This finding is in line with Ahmed et al. (2024) and Lau and Chan (2003), who found that lower proficiency learners often hesitate to skip unfamiliar words and feel compelled to translate texts literally due to limited vocabulary and insecurity. Such habits can hinder comprehension by breaking the reading flow and preventing the integration of larger textual units. Therefore, promoting flexible reading strategies and encouraging a tolerance for ambiguity are important steps toward developing independent reading skills.

Overall, the findings reinforce the idea that cognitive strategies play a crucial role during the while-reading phase, especially in EFL contexts where learners must negotiate meaning with limited linguistic resources. The frequent use of contextual guessing and background knowledge activation suggests that students are engaged in meaning-making and critical interpretation during reading. These results resonate with those of Phakiti (2003), who identified cognitive strategies as strong predictors of reading comprehension success among EFL learners.

However, the relatively infrequent use of strategies involving self-monitoring or ambiguity management indicates areas where strategic instruction could be improved. As Paris, Wasik, and Turner (1991) suggest, readers need both cognitive and metacognitive strategies to become autonomous and efficient. Teachers, therefore, should not only encourage the use of contextual and prior knowledge strategies but also foster greater metacognitive awareness by incorporating activities like think-alouds, self-questioning, and reflection into their instruction. This echoes the recommendations of Yusuf (2012), who advocates for explicit strategy instruction to enhance students' control over their own learning processes.

This study contributes to the growing body of research on reading strategies in EFL contexts and offers practical pedagogical implications. It suggests that while students show competence in applying certain cognitive strategies, there is still a need for

broader training that includes metacognitive elements. Future research could build on these findings by examining the impact of explicit strategy training programs on reading outcomes or exploring the relationship between students' metacognitive awareness and their overall academic performance in English. Longitudinal studies could also provide insight into how strategy use evolves as learners progress through different stages of language proficiency.

IV. CONCLUSION AND SUGGESTION

A. Conclusion

This study investigated the cognitive while-reading strategies employed by eleventh-grade students at SMA Negeri 9 Palangka Raya to understand their reading comprehension processes. The findings reveal that students most frequently use strategies such as relating the text to prior knowledge, guessing word meanings from context, and considering surrounding sentences to infer meaning. These strategies reflect active engagement with the text and are indicative of effective reading practices. However, less commonly used strategies, such as thinking aloud and skipping unknown words, suggest that some students may still encounter challenges in fully utilizing cognitive and metacognitive strategies. Overall, the study highlights the significance of cognitive strategies in improving reading comprehension and suggests that teachers should incorporate explicit strategy training to support students in becoming more proficient readers.

B. Suggestion

Based on the findings of this study, it is recommended that English teachers provide explicit instruction and guided practice in using a variety of cognitive and metacognitive reading strategies. Encouraging students to apply strategies such as activating prior knowledge, inferring meaning from context, and monitoring comprehension can help improve their reading proficiency. Future research could investigate the effectiveness of strategy training programs or explore students' reading behaviors across different proficiency levels and text types.

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