



Metacognitive Reading Strategies in EFL Context: A Systematic Literature Review

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Abstract

This article aims to synthesize the overall research on metacognitive reading strategies in EFL context. The method used is the Systematic Literature Review to read and to examine the studies related metacognitive reading strategies in the last two decades. associated major theme in metacognitive reading strategies in EFL and is divided into three themes, those are (1) metacognitive strategies towards EFL reading; (2) assessing metacognitive reading strategies; and (3) metacognitive reading strategies for diverse learners. The results shown that the use of some metacognitive strategies in teaching reading could improve students' reading comprehension as well as students' reading behavior. Meanwhile, the importance of cultural, linguistic and educational background variation affects students' metacognitive strategies during reading, specifically academic text and school materials. Lastly, the learners tended to utilize similar strategic awareness in reading due the difference sociocultural environment.

Keywords: metacognitive; reading; strategies.

1. INTRODUCTION

Recent trends in the field of reading comprehension have led to an increasing emphasis on the role of metacognitive awareness of one's cognitive and motivational processes while reading (Yulita, 2019; Denton 2014). During the past two decades, studies on reading strategies have reflected a shift in attention from a focus on the product of reading (e.g., a score on a reading comprehension test) to process oriented research which emphasized determining the strategies that readers actually used while they were reading (Mbato, 2013).

In Indonesia context, the regulation of National Education Ministry No. 26 Year 2007 stated that the main task of a teacher is to prepare instructional materials which accommodate higher order thinking skills in the reading process. Accordance to that regulation, metacognitive experts agreed that the main objective of learning is to develop higher order of thinking skills. This ability can be developed by

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providing students with problem solving exercises based on metacognitive knowledge (Abdullah, H & Khaeruddin, 2012).

Initially, metacognitive are used widely in educational psychology and cognitive psychology to mean about thinking or regulation and execution of cognition (Flavell, 1979). The theoretical framework of metacognitive reading strategies had been developed by Flavell that divided metacognition into two dimension, the first is knowledge of cognition and the second is regulation of cognition. As stated in Zhussupova (2016), metacognitive strategies are related to how we think and learn including three skill techniques: planning, monitoring and evaluation. Pammu (2014) confirmed that in order to improve reading proficiency and to design reading development program we need to understand the learners' reading strategies. At last, Yulita (2019) emphasized that regardless of their low competence in English reading, learners have high awareness on using the metacognitive strategies in reading. This proved the importance of metacognitive knowledge of L2 reading strategies to establish link between learner's knowledge and strategies.

Inspired by these findings, this paper is purposed to explore the use of metacognitive strategies in reading English academic text. Inspired by this findings, this paper will cover the significant impact of metacognitive strategies toward reading comprehension by applying diverse method and facilitation, and the variation of reading strategies used by students from different cultural, linguistic and proficiency background.

2. METHODS

Systematic literature review can be considered as a methodology for and a product of scholarly research (Paul et al, 2021). As a methodology, it encapsulates the process for assembling, arranging, and assessing existing literature in the topic chosen. And as a product, it signifies an art of understanding of existing literature and a stimulating agenda to advance understanding through new literature in the topic chosen.

This article used systematic literature review classification by Paul and Criado (2020) in the form of domain based-reviews on the development of metacognitive reading strategies in EFL. The focus was limited to the sub-form of structured theme-based reviews where the theme was formulated from the literature. The source of literatures in this article was collected from international and national article journals that have researched the area within metacognitive reading strategies from the last two decades.

The theme from the selected articles was synthesized theories, models, construct, contexts, and methods. Thus, this article includes associated major theme in metacognitive reading strategies in EFL and is divided into three themes, those are (1) metacognitive strategies towards EFL reading; (2) assessing metacognitive reading strategies; and (3) metacognitive reading strategies for diverse learners.

3. RESULTS AND DISCUSSION

The use of some metacognitive strategies in teaching reading could improve students' reading comprehension as well as students' reading behavior. Some research investigated the effect of metacognitive reading strategies in helping students to improve reading comprehension.

Metacognitive Strategies towards EFL Reading

The relationship between metacognition and reading comprehension has been investigated and progresses toward several developmental stages. Earlier studies in metacognition were influenced the

other researchers significantly. The study found that young students ignored the metacognitive strategies while reading such as knowing when they are comprehending, knowing what they need to know and what they have comprehended, knowing where they fail to comprehend and knowing what they need to do to repair the comprehension failure (Gilakjani & Sabouri, 2016).

Applying metacognitive strategies in teaching reading encouraged the learners to express ideas and emotions that they had about what the author was trying to say. Moreover, students would be able to apply the strategies they have learned for future reading.

Zussuphova & Kazbekova (2016) examined the effective of metacognitive strategies to reading comprehension. The study worked with practical teacher's manual "GUIDE on using metacognitive strategies in teaching reading comprehension" where some assignment and task provided for both teacher and students. The GUIDE manual book focused on the model of metacognitive strategies including, promoting self-questioning, thinking aloud while performing a task and making graphic representations. The lay out of the assignments and exercises consisted of language prompts to use during think-aloud, paragraph topic headings, comprehension, missing sentences and checking detail. This Guide helps students to work individually and perform the task on the theme.

The study came up with the result that most students used metacognitive strategies consciously got excellent metacognitive comprehension. Zussuphova & Kazbekova (2016) found that during the process of teaching metacognitive, it provided a meaningful vehicle in delivering collaboration, peer editing, moment of engagement, leadership and students taking control. It helps students to get deeper understanding of the text that lead to big and critical thinking.

Further research by Balikcioglu & Efe (2016) in Ankara, Turkey, showed the significant impact of metacognitive strategies as pre-reading activities to reading comprehension. Integrated metacognitive strategies in pre-reading activities is based on schemata theory that is mental structure of representing generic concepts stored in memory. Surprisingly the result of this research did not show significant difference between control and experiment group. However, the analysis of the number of correctness represented a difference and experiment group has outperformed compared to the control group. The most seen effect in using metacognitive reading strategies is the classroom become less monotonous since the strategies applied like Socrates circle and shape shifting during the reading allowed students to move around, drawing, and interact with classmates.

The study concluded that metacognitive strategies helps to improve students' critical thinking ability, but for significant result in reading comprehension, these strategies should be integrated into instruction frequently.

Beside the reading achievement, metacognitive strategies have impact on reading behavior in case of self-regulating while reading. Study by Yulita & Safrina (2019) on the effect of metacognitive reading strategies to improve self-regulation exposed that by giving metacognitive instruction in developmental reading strategies for college level, the students' awareness and reading ability increased. Additionally, teacher should concern on repeated modeling, practice, assessment, and continued feedback of these strategies to see the students' progress.

Yulita & Sinu (2023) found that think-aloud protocol as instruction in reading strategies. Through think aloud protocol, students' reading behavior changed significantly. There was movement from basic declarative knowledge strategies to deeper procedural and conditional knowledge. Students realized that they used the strategies without prompting and it allowed them to become a self-regulated reader.

Furthermore, students' reflection showed the students' ability to understand learning task demands, to devise and use reading strategies in regulating their reading and take advantages of the metacognitive approach implementing in classroom instruction. The students were developing into self-regulated English language learners. The survey responses indicated that students used more strategies such as

monitoring and evaluation strategies at the end of the course, indicating that they were becoming more self-regulated after engaging in metacognitive approach.

Mbato (2013) who studied the metacognitive approach toward Indonesia learners formulated four themes indicating how metacognitive approach assisted students to become self-regulated, those are (1) It empowers students to experiment with learning, (2) It assists students to become life-long EFL learners, (3) It recognizes that students develop at different rates, and (4) It fosters a culture of collaboration. The study explained that the metacognitive approach could boost students' self-regulation by involving three elements, those are learning task demands, strategies and affective elements. In other words, both cognitive and metacognitive should be integral part of the regulation.

Assessing Metacognitive Reading Strategies

There two instruments in measuring metacognitive reading strategies used by students both as ESL/EFL readers. These instruments give different terminology and theoretical framework in categorizing metacognitive reading strategies.

Metacognitive Awareness Reading Strategy Inventory (MARS)

MARS (Metacognitive Awareness Reading Strategy Inventory) developed by Mokhtari and Rheichard (2001) that divided metacognitive reading strategies into three categories, those are global strategies, problem solving strategies and support strategies.

(1) Global Reading Strategies (GLOB), which can be considered as generalized or global reading strategies aimed at setting the stage for the reading act (e.g., setting a purpose for reading, previewing text content, predicting what the text is about, etc.)

(2) Problem-Solving Strategies (PROB), which are localized, focused problem solving, or repair strategies used when problems develop in understanding textual information (e.g., checking one's understanding upon encountering conflicting information, re-reading for better understanding, etc.)

(3) Support Reading Strategies (SUP), which involves using the support mechanisms or tools aimed at sustaining responsiveness to reading (e.g., use of reference materials like dictionaries and other support systems).

Metacognitive Reading Strategy Questionnaire (MRSQ)

Taraban, Rynearson, and Kerr (2004) developed the Metacognitive Reading Strategy Questionnaire (MRSQ), divide the element of metacognitive reading strategies into an analytic-cognitive and pragmatic behavioral. Analytic-cognitive component aimed at reading comprehension and particularly assessed students' cognitive effort to comprehend text such as evaluating reading goals and inferring information. A pragmatic behavioral component aimed at studying and academic performance and involved physical actions and included cognitive such as underlining, highlighting, read more and re-read.

Metacognitive Reading Strategies for Diverse Learners

Some research took into consideration the importance of cultural, linguistic and educational background variation that affected students' metacognitive strategies during reading, specifically academic text and school materials. Yulita & Safrina (2019) stated that they are expected to utilize similar strategic awareness in reading due the difference sociocultural environment.

Metacognitive reading strategies by ESL and EFL learners

Some studies reported that there are similar patterns of strategy awareness between ESL and EFL learners on using reading strategies. Regardless the difference of sociocultural environment, both ESL and EFL students most used problem-solving strategies such as reading slowly and carefully, or re-reading for better understanding. This implied that both groups are not frequently use various useful and effective strategies for better comprehension like summarizing, underlining or note-taking.

Whereas, the study reported ESL students used most types of strategies more often than the EFL students, including support strategies which rarely used by readers. ESL students are more interested in using top-down strategies during reading while EFL students are more focused on using bottom-up strategies where they searched references from dictionary for unknown words.

This finding is supporting previous research by Abdullah et al (2013) in comparing ESL and EFL students in using strategies during reading. Despite the fact that both groups have significant difference environment, they have remarkably similar patterns of strategy awareness in reading academic materials.

Metacognitive reading strategies by native and non-native

Yulita & Neno (2022) argued that different setting of study in metacognitive reading strategies was one factor that had to be taken into consideration because it could affect the findings. Taraban et al (2004) added that the diversity of participants regards the ethnicity, age, occupation, and geographical location might have been considered for future study in metacognitive strategies.

Study by Mokhtari and Shorey (2002) found that non-native English but speak English as second language in US more frequently used support strategies compared to native English. In the native group, the female participant showed significant higher frequency of using reading strategies while this gender variable is not affected the non-native sample group.

The study of metacognitive reading strategies in Indonesia has been developed however there has been very little information in the literature (Vianty, 2007). Thus, Vianty (2007) investigated Indonesian students metacognitive reading strategies when reading in Bahasa and in English. The t-test showed significant difference that the students reported using some of the analytic reading strategies when reading in Bahasa and they more frequently used pragmatic reading strategies when reading in English.

The tendency of using analytic strategies when reading in Bahasa was predictable and logically been explained that due to the nature of analytic strategies that required more cognitive skills. Students do not have problem in understanding the text like they have in reading in English. Taraban (2004) stated that the nature of pragmatic reading strategies is simple and appropriate for less sophisticated readers. A possible explanation added that the use of pragmatic strategies in English might be caused by students' lack of understanding of particular words or sentences then some strategies such as underlining and highlighting the words or sentences were occurred. Another pragmatic strategy might be done was writing notes or questions relate to the unknown words or sentences.

Surprisingly, the students reported using the last two pragmatic reading strategies, namely *Read more* and *Re-read* more frequently when reading in Bahasa. It was possible to happen because when reading in English, students already concentrated more and read slower since the beginning so that students were not likely to re-read the English text.

Alsheikh (2011) investigated the difference of reading strategies used by Arabic learners when reading in Arabic and in English. The study used self-report survey based on MARS by Mokhtari and Shorey (2002) and think-aloud protocol. The data presented that the participants used few strategies in reading the Arabic text. While in reading English text, participants used higher rate of reading strategies.

There are four major issues in Alsheikh research comparing the native and non-Arabic reading strategies. First, participants used all strategies in SORS by Mokhtari and Shorey those are global reading strategies, problem solving strategies and support strategies. Second, the significant difference among the participants is they used more problem-solving strategies and support strategies in reading English. There was no significance difference in using global reading strategies. Third, the participants' preference strategies were quite similar. In general, problem-solving was most used both in reading Arabic and English. Four, the participants actually used more than half of the strategies when reading English and used fewer strategies when reading Arabic.

Meanwhile, the fact that the Support Strategies were the least used in Alsheikh report in reading both languages was inconsistent with results by Mokhtari that found the ESL students/non-native English in US used the high value of support strategies. This inconsistency could be occurred based on the types and characteristic of students, the influence of native language and students' reading abilities in both languages.

Metacognitive Reading Strategies in less proficiency level learners

Assessing metacognitive strategies used by low-proficiency learners or learner in poor environment will give future direction in analyzing students' reading strategies while processing the reading text and how socio-cultural impact students' awareness in reading strategies. There is a claim by Anderson (1991) that both successful and unsuccessful language learners use the same kinds of strategies with different level of frequency.

Yulita & Safrina (2019) investigated the awareness of metacognitive strategies for different English proficiency levels of Indonesian high school students. The study reported the list strategies used emerges are (1) predicting content in the text, (2) monitoring, (3) acknowledging deficiency of vocabulary knowledge, (4) admitting inadequate prior knowledge, (5) skimming for key information, (6) translating into the first language, (7) re-reading, (8) using a dictionary, (9) inferring, (10) conducting grammatical analysis, (11) cooperating with others for better meaning-making, and (12) interacting with the text and author. The study reported that high score group used strategies in reading such as monitoring their reading, skimming the key ideas, and guessing meaning. While the low score group were reported using few strategies and have less awareness of their strength and weaknesses. The low score group tended to be depended on dictionary for searching unknown words and translating the English to Indonesian. It is found that advanced learners tend to use global strategies while less advanced learners used more local strategies. This report has proved the general finding that revealed good and poor readers use different strategies, but poor learners use the strategies less effectively.

Similar research by Pammu et al (2014) focused on less proficient tertiary learners in Indonesia, specifically in Makasar. Pammu et al found that there is high level of metacognitive awareness for problem-solving strategies and medium level of awareness for global reading strategies and support strategies. The less proficient learners less preferred global reading strategies. The learners did not do previewing process to obtain the context of the text. This lead the learners to miss the direction of reading that might help them to make proper guessing and predicting of unknown reading material.

Regarding the support strategies, the less proficiency learners tended to avoid use paraphrasing and restating ideas. Most of less proficient learners have significant of outside reference like dictionary when reading a text. It proved that they are dependent on the assistant of outside materials and reference. Pammu et al stated the research finding support the previous hypothesis that less proficient learners read different text with the same manner, and not focused to meta-analysis of text and they more focus on local strategies such as reliance on decoding and linguistic knowledge.

Furthermore, Pammu et al showed the high level of awareness in using problem solving strategies by less proficient learners. The most significant strategy is reading slowly but carefully to understand the text followed by re-reading strategy. The least strategy of problem solving strategy used by less proficiency learners is making time adjustment or their reading. It is concluded that regardless of the proficiency level, learners employ metacognitive strategies in language learning. Less proficiency learners were indicated to be more interested in using top-down strategies for better comprehension. They are also interested in using reference material which causes interference in their reading process.

4. CONCLUSION

Metacognition or thinking about thinking is key to reading comprehension. Based on Flavell (1979) model, by applying the strategies, students would do well the declarative knowledge (knowing what strategies are), also procedural knowledge (knowing how to use the strategies) and conditional knowledge (knowing when, where, and why use the strategies and evaluating the use). Some study indicates that all students use metacognitive reading strategies unconsciously in their language learning, yet the less proficient learners use the strategies less effective. The high proficiency learners have high rate of strategies used during reading, they would cover all strategies such as global strategies, support strategies and problem-solving strategies. While the less proficiency learners focused on support strategies and problem-solving strategies.

It is necessary for EFL/ESL teachers to teach and apply metacognitive reading strategies to students explicitly and integrated with some instruction like think-aloud protocols, visual presentation and graphic organizer. Providing diverse methods and facilitate the learning process would encourage students to be independent and could use metacognitive strategies consciously for their future reading. The pedagogical impact of metacognitive reading strategies should be considered and included in strategy training within Indonesia curricula.

Further research need to investigate the reason behind certain strategies that are used and not used by ESL/EFL learners. Future research could examine more deeply the correlation between metacognitive strategies and learning styles, gender, first language background and motivation role. There is also necessary to carry more descriptive study regarding metacognitive strategies so that detail information and deeper analysis of how students use the strategies can be gathered. The next study need to be conducted in larger sample and more detail constructed tests to provide valid answer of the proposed problems.

The engagement of metacognitive approach as reading strategies must be continued in directing specific strategies and encouraging the students to be independent learners. Some feedback and training should be improved by doing reflections, regular teacher meetings, learning assessment and flexible syllabus that support the implementation of metacognitive strategies.

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