An Overview of the Effects of Metacognitive Strategies on EFL Reading Comprehension

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Abstract

This paper presents an overview of the impact of metacognitive strategies on EFL reading comprehension. The introduction emphasizes the importance of metacognitive strategy utilization in improving reading ability and the differences in metacognitive awareness between successful and unsuccessful readers. Metacognition and metacognitive strategies are defined and explained in the literature review section, along with their significance to language learning and reading comprehension. The review also summarizes studies showing that metacognitive strategy use improves EFL reading comprehension and metacognitive instruction improves students' metacognitive awareness and reading achievement. The conclusion underscores the unanimous agreement among researchers regarding the benefits of metacognitive strategies and the pedagogical implications for EFL teachers, curriculum developers, and policymakers are also discussed. This paper advocates for the incorporation of metacognitive strategy training into the regular reading teaching program, the development of clear directions for implementing the instruction, and the provision of professional development opportunities for teachers.

Keywords: *metacognition, metacognitive strategies, EFL reading comprehension*

1. Introduction

The effects of metacognitive strategy use on reading comprehension have attracted much attention among teachers and researchers in the field of English language pedagogy over the past three decades (Wilawan, 2013). Tremendous studies have investigated the correlation between learners' use of metacognitive strategies and their success in reading performance, many of which concluded that learners who properly employed reading strategies tended to do better than those who did not. Therefore, it would be particularly helpful to be aware of reading strategies and know how to use these strategies to enhance the understanding of texts. The findings also revealed that metacognition was a quality that was usually found in more experienced and skilled readers. On the contrary, less proficient readers appeared to have less awareness of reading strategies

and the role of these strategies in reading comprehension, a circumstance that made them more passive in approaching texts that they were reading. Similarly, according to Nguyen & Trinh (2011), there was a decided difference in metacognitive awareness and use between successful and less successful readers. That is, good readers tended to deal with comprehension activities at the metacognitive level. They knew how to read effectively, and surprisingly, having high metacognitive awareness, readers could even monitor themselves when they encountered difficulties in comprehending texts (McCormick & el., 2000). These researchers also indicated that one of the ways to develop academic skills was to boost the development of metacognition, which could in turn predispose learners to greater success in not only reading comprehension but also other skills. As a whole, metacognitive strategies are widely recognized to be part of effective reading strategies that are of great importance for improving learners' reading ability as well as their critical thinking skills. This paper is aimed at (1) authenticating the positive effects of metacognitive strategies on learners' reading comprehension by examining the findings of a certain number of related studies and (2) implicating some pedagogical ideas to promote learners' metacognitive strategy use of reading comprehension.

2. Literature review

2.1. Definitions of metacognition

As a prerequisite, this paper will shed light on what metacognition is before any definitions of metacognitive strategies are reviewed. Although metacognition has become one of the most popular term catching linguists' and researchers' attention, its meaning seems to be often assumed (Boulware-Gooden, 2007; Trinh 2011). Thus, in this paper, various metacognition definitions will be presented to illustrate in the successively hierarchical organization.

Metacognition was originally coined by Flavell (1976) who referred to it as an individual's awareness and regulation of the thinking process. To put it another way, the term literally means "thinking

about thinking", or more formally, "cognition about cognition". He acknowledged metacognition as an essential factor that affects a great deal of activities concerning language use. Flavell also proposed a formal model of metacognition consisting of four distinct categories: metacognitive knowledge, metacognitive experiences, goals or tasks, actions, or strategies. Brown (1987) defined the concept as "an understanding of knowledge" which "can be reflected in either effective use or overt description of the knowledge in question". She also made a central distinction between two senses of metacognition, namely knowledge of cognition and regulation of the cognitive system. Based on such theory of metacognition, researchers further explained that the former indicated the knowledge of the cognitive process that people possessed, and the latter referred to how activities were used to regulate cognition in the learning process. The definition has been broadened in Papaleontiou-Louca's (2008) "theory of mind", showing that besides cognitive processes, the concept also includes anything psychological. She stated that metacognition referred to "second-order cognitions: thoughts about thoughts, knowledge about knowledge or reflections about actions". Even, metacognition can involve "peoples' awareness and control of their emotions and motivations". When applied to the realm of reading, metacognition helps to elucidate how reading comprehension takes place under a constructivist perspective and how to use instructional strategies to optimize reading comprehension (Tracey & Morrow, 2012). By understanding this, teachers can use metacognitive strategies to develop their learners to be independent ones who can take control over their own learning. Taken together, what are metacognitive strategies? The answers will be succinctly explained in the next section of this paper.

After the aforementioned definitions, it is recognized in this review that metacognition is the higher level of cognition, so its meaning certainly is associated with the process of cognition (i.e., awareness and control of the cognitive process). There is no doubt that metacognition functions as a vital factor in facilitating language learning in general and reading comprehension in particular.

2.2. Definitions of metacognitive strategies

Metacognitive strategies are known to be crucial to the success of ESL/EFL learners in their reading performance. There are massive accumulations of metacognitive strategy definitions having been put forward, which significantly affects a large amount of research in the field of metacognition, some of which will be reviewed in this part of the paper in chronological order.

To begin with, metacognitive strategies involve an awareness of strategies that a person is employing,

along with his or her knowledge about the actual learning process (Williams & Burden, 1997). Such strategies also include one's ability to consciously control and regulate the use of proper learning strategies in various contexts, and as such metacognitive awareness is considered to be important for effective learning. Metacognitive strategies also encompass "such processes as planning, prioritizing, setting goals and self-management". Cubukcu (2008) stated that metacognitive strategies are those that require learners to think and reflect on their thinking when they are engaged in doing academic tasks. Trinh (2011) simply described metacognitive strategies as "cognitive strategies over cognitive strategies". In terms of reading comprehension, these strategies bolster learners to have control over the cognitive function to administrator their thinking in managing the reading process, with the outcomes of tackling reading-related problems and clearly answering questions being involved. In Zhang's & Seepho's (2013) study, metacognitive strategies are viewed as "high-order executive skills" that are adapted to activate the knowledge of cognition and to regulate the learning process through the three clusters of metacognition: planning, monitoring, and evaluating. These clusters are used in the pre-reading, while-reading, and post-reading stages, respectively. As regards planning strategies, learners are prepared to accomplish reading tasks by activating their background knowledge to link with the information that is going to be learned with a variety of techniques such as questioning and answering, comparing and contrasting, predicting, and so on. Monitoring strategies are composed of comprehension and production monitoring. These strategies are operated via multiple activities such as skimming and scanning for main ideas and details respectively, inferring the underlying information, summarizing the text, and reflecting on self-understanding, to name but a few. Evaluating strategies constitutes learners' reflection on whether they achieve their reading goals and evaluating the reading strategy use. Thereafter, they can make appropriate modifications to their task executions for later use.

The above-mentioned definitions make it evident that metacognitive strategies are of great importance in the domain of reading comprehension.

2.3. Studies on the positive effects of metacognitive strategy use on EFL reading comprehension

A wide range of studies on metacognition in reading comprehension have been carried out around the world over the last three decades (Wilawan, 2013), especially since Flavell's (1976) model of metacognition was introduced.

In 2008, Cubukca conducted a study within the milieu of Dokuz Eylul University, Turkey to explore whether the systematic direct instruction of metacognitive strategies could foster students' understanding of texts. The impact of such instruction on the development of vocabulary was examined as well. A group of 130 third-year students were involved in the research, which was arranged into two groups: a control group and an experimental group. After five weeks of the intervention program, the findings revealed strong evidence of difference between the control and experimental groups, with the former better developing their reading comprehension and vocabulary than the latter. It is for this reason that Cubukca confirmed the efficacy of metacognitive strategy teaching and assumed that the instruction could assist students to be autonomous and strategic readers in the long term.

Chau (2009) conducted the research which aimed at investigating to what extent metacognitive strategy instruction affected students' metacognitive awareness as well as their achievement in reading comprehension. A total of 61 non-English-major students at Tra Vinh Teacher Training College participated in the study, in which there were 31 and 30 participants in the experimental group and the control group respectively. Statistical evidence showed that a meaningful improvement in the metacognitive level was recorded in the experimental group thanks to the intervention, whereas this was not the case of the control group. The results also proved that the increase in students' metacognition was in direct proportion to their reading ability. Based on these findings, Chau highly recommended the use of metacognitive strategies in the reading process and suggested that these strategies should be instructed and frequently used to enhance reading comprehension.

Trinh (2011) did the research using the descriptive approach to investigate the most frequently used metacognitive reading strategies in the perception of 200 English-majored freshmen and juniors at Can Tho University. Two instruments used in the study were a questionnaire and a reading comprehension test. By relating students' cores of the test with what they answered in the questionnaire, Trinh found out that exerting metacognitive strategies in reading comprehension yielded positive outcomes, in which planning strategies were used most regularly by the population, followed by monitoring strategies.

Implemented with 84 students in a quantitative methodology, Nguyen & Trinh's (2011) study had similar results compared to Chau's and Trinh's in the sense that metacognitive strategies constructively affected learners' reading performance. More specifically, most successful students were strong at metacognitive awareness, being able to select proper strategies to address reading tasks and know how to use them, whereas the opposite was true of their less successful counterparts. Hence, Nguyen suggested that it would be paramount to train these less successful students to have more knowledge of metacognitive strategies and the regulation of cognition so that they could gradually become strategic readers and ameliorate their weaknesses in reading comprehension.

Wilawan's (2013) research findings analogously indicated that with the assistance of the instructional approach towards metacognition, EFL students could become more successful and competent readers. The study also affirmed the importance of enhancing EFL readers' metacognition in terms of knowledge of cognition and regulation of cognition. The former comprises three subcomponents: declarative, procedural, and conditional types of knowledge, with a set of questions being asked concerning each type. Turning to the latter, participants were interviewed about their using three clusters of regulatory strategy: planning, monitoring, and evaluating strategies to check whether they were able to control their reading tasks.

Strongly advocating the significance of metacognitive reading strategies, another study to be reviewed was conducted by Zhang and Seepho (2013). The data for the study were obtained from 33 third-year English major students at Guizhou University, China, who were classified into two distinct groups: high proficiency students and low proficiency students based on their scores on a reading test for English majors and grades from the two previous reading courses. In addition to the reading test, two other methods were utilized for the data collection: questionnaire and interview. The results manifested that being exposed to the same training program of metacognitive strategies, both groups experienced an upswing in their reading comprehension. However, low-proficiency students were discriminated from their high-proficiency counterparts in the level of employing three sub-metacognitive strategies (i.e., planning, monitoring, and evaluating strategies) due to their limited linguistic knowledge bases. Thus, the results led to a conclusion that the metacognitive strategy use was positively correlated with reading achievement, with monitoring strategies being reported to be the most effective in comparison with the others.

Muhid et al.'s (2020) study also showed similar results, indicating that utilizing metacognitive strategies could greatly enhance students' reading comprehension achievement. In relation to the background of the participants, they were EFL students who struggled to comprehend English texts because they had limited exposure to the target language, and they faced challenges in mastering English reading comprehension, despite their extensive learning efforts. Therefore, the study was

conducted to examine the impact of metacognitive strategies on the level of reading comprehension achievement. It was found that the experimental group demonstrated enhanced performance in reading comprehension tasks following the implementation of metacognitive strategy instruction. The study also showed that readers who possess strong strategic skills are adept at planning, monitoring, and evaluating their reading in a highly effective manner.

Annisa et al.'s (2023) study investigated the impact of metacognitive methods on students' reading comprehension and their attitudes toward their use. The study employed an experimental design with tests and questionnaires. Two classes were chosen using cluster random sampling. The experimental group had an average post-test score of 83.29, while the control group had a score of 78.57. The independent sample t-test showed a significant difference in the post-test score between the two groups. The study concluded that metacognitive tactics significantly impact students' reading comprehension. The majority of experimental students agreed strongly on the affective, behavioral, and cognitive aspects of metacognitive strategies.

Up to now, a series of studies have been taken into consideration for the review of this paper. As a whole, the researchers shared a consensus that metacognitive strategy played a very vital role in enhancing students' reading comprehension. As in Zhang and Seepho's (2013) study, "the more the students used metacognitive strategies, the more likely they were to obtain higher scores on the reading comprehension test" (p. 63).

3. Conclusion

To sum up, all the studies included in this paper have reached an agreement that the intervention of metacognitive reading strategies is advantageous to EFL/ESL learners. That is to say, being able to use these strategies, students can increase their comprehension of texts. Cubukcu (2008), Chau (2008), and Zhang and Seepho (2013) affirmed that metacognitive strategies could be taught, so strategy instruction in reading classrooms played an important role in imparting knowledge of these strategies to students. The more knowledge they obtain, the more successful they are. Besides, studies giving evidence on the efficacy of strategy training appear to persuade English students and teachers, curriculum designers, and policymakers to be more aware of the benefits of strategy training.

4. Pedagogical implications in the context of Vietnam

As seen from the above studies, the benefits of metacognitive strategies in reading comprehension are undisputed; therefore, there is a need to

strengthen the instruction of such strategies. To this end, this section will present some practical implications for EFL teachers, curriculum developers, and policymakers in Vietnam and in similar contexts.

4.1. Implications for EFL teachers

Tran (2006, cited in Trinh, 2011) confirmed that teaching practices have a reciprocal relation with learners' improvements. Thus, it is highly recommended that English language instructors should raise the awareness of metacognitive reading strategies in learners, especially less proficient ones to increase their opportunities for success. In particular, teachers should work towards building a learning environment where students are reinforced to construct their explicit knowledge of what metacognitive strategies are, how they work, and when they are employed. This in turn makes it possible for students to "plan, monitor and evaluate their learning reading" (Nguyen & Trinh, 2011). Besides, by understanding problems inhibiting students from approaching reading strategies, teachers can make suitable modifications in their instructions in the hope of providing students with good exposure in this area.

4.2. Implications for curriculum designers

Before the implementation of metacognitive strategy teaching, one way to secure its applicability and efficiency is by developing a good curriculum for such a practice. When designing a curriculum that is conducive to metacognitive skill development in students, those who are involved should take into account these two things. First, in some teaching settings in Vietnam, the importance of metacognitive strategy is made light of, and even it is considered to be unnecessary. Thus, the curriculum should include the explicit incorporation of the metacognitive strategy training into the regular reading teaching program, which might in turn contribute to the prevalence of such a beneficial instruction. Second, the curriculum and its corresponding teaching approach aiming at enhancing students' metacognitive skills in reading comprehension should be developed with clear directions for implementing the instruction. Such directions should create opportunities for students to learn about metacognitive strategies and practice these strategies in the right way.

4.3. Implications for policymakers

In Vietnam, in order for metacognitive strategy teaching to be more effective and more prevalent, it is suggested that policymakers should focus on the following issues: practitioner training and research into metacognitive strategies. As regards the first, teachers should have more opportunities for their professional development in teaching metacognitive reading strategies, probably provided through

training sessions workshops, and conferences where teachers can share their experience in the field. Regarding the second, policymakers should not only encourage but also support high-quality research on metacognitive strategies and strategy instruction since the amount of such research is very limited in the context of Vietnam.

References

[1] Boulware-Gooden, R., & al. (2007). Instruction of Metacognitive Strategies Enhances Reading Comprehension and Vocabulary Achievement of Third-Grade Students. *The Reading Teacher*, *61*(1), 70-77.

[2] Brown, A. L. (1987). Metacognition, executive control, self-regulation, and other more mysterious mechanisms. In F. E. Weinert & R. H. Kluwe (Eds.), *Metacognition, motivation, and understanding*. Hillsdale, NJ: Lawrence Erlbaum Associates.

[3] Chau, H. H. (2009). Effects of metacognitive strategy instruction on students' reading comprehension: Unpublished MA thesis, Can Tho University, Can Tho, Vietnam.

[4] Çubukçu, F. (2008). How to enhance reading comprehension through metacognitive strategies. *The Journal of International Social Research, 1*(2), 1-11.

[5] Flavell, J. H. (1976). Metacognitive aspects of problem-solving. In Resnick, L. B (Ed.), *The nature of intelligence*. Hillsdale, NJ: Erlbaum.

[6] Mccormick, C. (2003). Metacognition, Learning, and Instruction. In: J. Graham, J. Naglieri & I. Weiner (Eds.), *Handbook of psychology* (2nd ed.). New York: Wiley.

[7] 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.

[8] Nguyen, M. T. & Trinh, Q. L. (2011). Metacognitive strategy use and reading comprehension: Insights from a Vietnamese context. *Journal of English Language Teaching*, *1*(1), 9-19.

[9] Nur Annisa, T., Thamrin, N., & Oktoma, E. (2023). The Influence of Metacognitive Strategies Towards Students' Reading Comprehension. Journey. *Journal of English Language and Pedagogy*, *6*(2), 421-429.

[10] Papaleontiou-Louca, E. (2008). *Metacognition and theory of mind*. Newcastle: Cambridge Scholars Publishing.

[11] Tracey, D. and Morrow, L. (2012). *Lenses on Reading: An Introduction to Theories and Models* (2nd ed.). New York: Guilford Press.

[12] Trinh, H. T. (2011). The use of cognitive-metacognitive strategies in the reading process among Can Tho University English-majored freshmen and juniors: Unpublished BA thesis, Can Tho University, Can Tho, Vietnam.

[13] Wilawan, S. (2013). Enhancing EFL Readers' Metacognition. *Journal of Education and Practice*, *4*(12), 64-71.

[14] Williams, M. and Burden, R. (1997). *Psychology for language teachers*. Cambridge: Cambridge University Press.

[15] Zhang, L. & Seepho, S. (2013). Metacognitive Strategy Use and Academic Reading Achievement: Insights from a Chinese Context. *Electronic Journal of Foreign Language Teaching*, *10*(1), 54-69.

[16] Zhou, A. (2009). What adult ESL learners say about improving grammar and vocabulary in their writing for academic purposes. *Language Awareness*, *18*(1), 31-46