Importance of Metacognitive Strategies in Enhancing Reading Comprehension Skills

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Abstract

Although research on second language learning strategies has traditionally been focused on L2 learning strategies, recent studies have shifted their attention to language learners' metacognition. Despite improvements in L2 educational practices, more research needs to be conducted on learners' metacognition while reading in EFL contexts. This article examined effective teaching strategies for EFL reading comprehension. During reading comprehension teaching, metacognitive strategies are emphasized primarily to enable students to reflect on their mental processes occurring before, during, and after reading. Through the use of metacognitive strategies, reading comprehension, and performance are enhanced. This study examined metacognitive strategies as tools for successful reading and related tasks. It aimed at determining how different metacognitive reading strategies are used by non-native English speakers at Bluefield State University (BSU). This research was conducted using a survey design. A sample of 34 students was randomly selected for the study. For the purpose of determining the metacognitive reading strategies of students, a metacognitive reading questionnaire was administered to them. The survey data were transferred to a computer, and Microsoft Excel was used to calculate the percentage and frequency. According to the research results, students regularly use metacognitive strategies before, during, and after reading. While reading, students pay attention to important parts of the text and evaluate both the text and their understanding of it. The research indicates that metacognitive strategies are effective at improving the metacognitive comprehension skills of EFL learners. Furthermore, metacognitive awareness contributes to an increase in self-efficacy among learners. As a result, they become high achievers in EFL.

Keywords: Reading strategies, metacognitive strategies, reading comprehension.

1. Introduction

In recent decades, international interaction has increased dramatically, whether in business, education, travel, or other contexts, and English has been a widely used language in these areas. For this reason, learners of English as a foreign language (EFL) need to master all four skills: listening, speaking, reading and writing. Additionally, reading comprehension is an essential component of their English language education. There are several compelling reasons for this, one of which is the fact that all high-stakes exams include a reading comprehension section. For instance, the Final Exams such as TOEFL and the IELTS place a great deal of emphasis on reading comprehension. In this vein, having good reading skills is essential for achieving high grades in examinations. Consequently, metacognitive strategies can be used by English learners to enhance their ability to comprehend reading material and overcome any difficulties they may encounter. This is a process designed to help students understand how they learn; in other words, it helps them think about how they think.

There have been numerous studies demonstrating that metacognitive strategies improve language performance. Those studies focus on language abilities and skills. Nevertheless, only a limited number of studies have examined the benefits of metacognitive strategies for second language learners. In this study, metacognitive reading comprehension strategies were examined in the context of teaching English as a foreign language (EFL) and their role in an individual's language development.

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2. Literature Review

2.1. Metacognitive Strategy in Reading Comprehension

Learners of foreign languages, particularly those who are not native English speakers, do not automatically acquire a deep understanding of text, but rather they develop this understanding through the use of reading strategies. According to Afflerbach et al. (2008), reading strategies are deliberate, goal-directed efforts to influence and modify the reader's ability to decode, understand, and interpret text. Therefore, they are essential for reading skills development through adequate instruction and learning.

Several studies have indicated that reading comprehension is a complex process, with students often facing difficulty deriving meaning from the text (Grabe & Stoller, 2002). Based on the findings of Salataki and Akyel 2002), students who begin learning the English language are most likely to encounter serious difficulty in understanding and constructing meaning.

There have been a number of studies examining this issue for a long time (Duke & Pearson, 2017; Goh, 2008; Baker & Brown, 1984). As their studies progressed, they focused more on examining how language learners learn rather than what they do to learn. In this proposed approach, a Learning Strategy (LS) is defined as any choice, behavior, thought, plan, and technique used by a learner to facilitate their learning process (Chamot, 1990; Cook, 2001; Macaro, 2001; Oxford, 1990).

When the Grammar Translation Method (GTM) was the most popular teaching method, the primary reading activity involved translating from a foreign language and focusing on factual information. As stated by Cahyono and Widiati 2006), "... reading a text in the target language was the central activity in language teaching that placed emphasis on matching words in the text with meanings in the students' native tongue" (p.36). As a result of this approach to teaching reading, little attention was paid to the process of understanding longer texts (Dubin & Bycina, 1991). This trend did not support academic reading, which requires the reader to conceptualize a text deeply and understand the author's point of view. It has been observed that when students use GTMs, they tend to read passively. They rely heavily on bilingual dictionaries and spend countless hours translating word for word and sentence by sentence. However, they still struggle with reading comprehension despite all their efforts.

In recent years, there has been a change in the requirements for effective readers. Reading is not limited to reading and translating or focusing on factual information, as stated above. Understanding a text requires an understanding of words, a context, as well as what the author is inferring from the text (words, juxtapositions, lexical combinations, semantic and conceptual network, context, etc.). It is common for students to make mistakes when attempting to answer questions that require them not only to provide factual information but also to infer meaning, comprehend an author's message, etc. Accordingly, reading means understanding every external and internal part of the text. Furthermore, teaching students effective reading skills is not only conducive to higher exam scores, but also to real-life success in situations where reading skills are important.

Reading comprehension has become a key component of many jobs. It is also important to note that learners who develop their reading skills will be able to perform better in their language classes. During their academic preparation, EFL students are required to learn reading in the classroom in order to have access to new information. It is also required that they take some kind of standardized test in order to pursue their further studies at graduate and postgraduate levels. By reinforcing their reading abilities, they will be able to make greater progress in all areas of their academic work (Anderson, 2002). In light of this, academic reading comprehension has become a major challenge. It is primarily due to the fact that teachers are currently using outdated methods to teach reading skills. Therefore, students are not prepared for more difficult exams that require greater analytical skills. In addition, students are not adequately prepared for life in the real world, during which reading skills play an important role in both everyday life and the pursuit of a career.

Many efforts have been made to develop taxonomies of LLSs, among which Rubin 1987), Oxford (1990), and O'Malley and Chamot (1994) have attracted the most attention. Although these models are fundamentally similar, they treat LLSs differently. Accordingly, certain groups of these strategies may be classified under different headings. Based on the research of scholars (Cornford, 2002; Harris, 2003; Leaver, Ehrman, & Shekhtonan, 2004; O'Malley & Chamot, 1990; Oxford, 1990; Oxford, 1994), Metacognitive Learning Strategies (MLSs) are considered a subset of such models. These strategies are designed to guide the learning process and to include strategies for planning, monitoring, and evaluating learning. In other words, they are concerned with thinking about thinking skills or learning how to develop skills (Anderson, 2002).

There is some variation in the way that language learner strategies are classified depending on the definitions used by the researchers concerned. As a result, several researchers support the classification of L2 learning strategies based on Oxford's Strategy Inventory for Language Learning (SILL) classification, which consists of cognitive, metacognitive, memory, compensatory, affective, and social strategies. Anderson (2003) divides language learning strategies into seven major categories: cognitive strategies, metacognitive strategies, mnemonic strategies, compensatory strategies, affective strategies, social strategies, and self-motivating strategies. In contrast, some researchers (e.g., O'Malley & Chamot, 1990; Chamot, Barnhardt, El-Dinary, & Robbins, 1999, Cohen, 1996) use fewer variables. Based on O'Malley and Chamot's (1990) classification of cognitive categories, there are two major types: metacognitive and cognitive strategies. Metacognitive strategies do not only oversee, direct, and regulate the learning process but also play a role in influencing it. The use of learning strategies provides an opportunity to think about learning processes, to plan learning activities, to monitor the learning process, and to evaluate it. Cognitive strategies, on the other hand, use techniques to manipulate the material to be learned or to apply a specific technique to learning.

The choice of language learning strategies consciously can contribute to active, conscious, and purposeful self-regulation. Therefore, teaching learners how to learn more effectively and efficiently is one way to accelerate academic language learning. In consequence, strategy training aims to diagnose oneself, learn the target language efficiently, develop problem-solving skills, experiment with familiar and unfamiliar learning strategies, make decisions regarding how to approach a task, monitor, and evaluate oneself, adapt successful learning strategies to a new learning context, and assist students in becoming self-sufficient, autonomous, and lifelong learners (Allwright, 1990; Little, 1991, cited Oxford 2003).

According to Nunan (1996), language learning strategies should be explicitly taught in the curriculum. For him, "Language classrooms should have a dual focus, not only teaching language content but also on developing learning processes as well" (p. 41). Several studies have demonstrated that language learners can learn more effectively when they are taught some of the learning strategies that have been identified as one of the defining characteristics of a good language learner in the literature (Rubin, 1975, 1981; Stern, 1975).

Additionally, metacognitive strategies have been demonstrated to be more important to this process than other learning strategies, as learners are more likely to acquire language faster once they are able to regulate their own learning through the use of strategies (Anderson, 2003). In order to be an effective strategic learner, one must possess metacognitive knowledge about one's own thinking and learning approaches, have an understanding of the requirements of a task, and be able to develop strategies that best suit both the requirements of the task as well as the strengths of the learner.

Alqahtani (2019) examined the relationship between metacognitive strategies and reading proficiency among university students and concluded that metacognitive approaches were highly correlated with reading comprehension. Denton et al. (2015) examined individual differences in reading comprehension strategy use among adolescents according to reading proficiency, grade level, and gender. A total of 1,334 students in grades 7-12 participated in the study. The findings indicated that more skilled readers reported significantly higher use of strategies. Similarly, adolescent girls reported being able to understand reading better than their male counterparts.

In a study published in 2012, Griva, Alevriadou, and Semoglou analyzed gender differences in reading preferences and strategies employed by fifth and sixth-grade students. Based on the results of the study, female students used cognitive and metacognitive strategies significantly more than male students.

As learners develop metacognition, they become aware of the learning process and the strategies that lead to success. This knowledge will provide learners with a better understanding of how they think and learn, thus enabling them to select and implement effective learning strategies, plan how to proceed with a learning task, monitor their own performance on a regular basis, solve problems encountered, and evaluate themselves upon completing a learning task (Zhang & Goh, 2006). In order to select and activate strategies, learners require metacognitive knowledge (Rubin, 1987), and educators should work to develop students' own metacognition as well as teach them how to utilize strategies that are most effective in completing the tasks they have to accomplish in language learning (Goh, 2008).

2.2. Metacognition

In his definition of Metacognition, Flavell (1999) states that, in addition to having a thorough knowledge of the individual's characteristics, the nature of cognitive processes to be completed, and the structure of the strategies chosen to complete these tasks, metacognition is an ability that plays a controlling role in monitoring and regulating a person's cognitive process (p.22). The term is also used in reference to any cognitive process which refers to, monitors, or controls aspects of cognition (Moses & Baird, 1999).

Metacognition is defined as the ability to think about one's own thinking or to be conscious of one's own mental processes (Nelson, 1996). According to Wenden (1998), metacognition is knowledge about learning that is present in the student's store of acquired knowledge, is relatively stable, early developing, and abstracts from the student's experiences. In Flavell's definition, metacognitive knowledge refers to "one's knowledge regarding one's own cognitive processes and products or anything associated with them, for example, the learning-relevant properties of information or data" (p. 232). As a term, metacognition refers to the active control of cognitive processes that occurs during metacognition (Wenden, 1998). In addition, it has been described as a 'seventh sense' and one of the characteristics of successful learners (Birjandi et al. 2006).

In the sense of declarative knowledge, metacognitive knowledge can be divided into three types: the knowledge that focuses on the learner, the knowledge that focuses on the learning task, and the knowledge that focuses on the learning process. In the literature, these three categories are called person knowledge, task knowledge, and strategy knowledge. Person knowledge refers to the information and resources a person requires to undertake a task and task knowledge refers to the information and resources available to complete a task, and strategy knowledge. i.e., the knowledge regarding the strategies which are likely to be effective in achieving goals and undertaking tasks (Flavell, 1976).

As noted by Brown et al. (1983), metacognitive knowledge and metacognitive strategies are different aspects of metacognition. A metacognitive strategy is a method for managing, directing, regulating, and guiding a learner's learning. Metacognitive knowledge refers to how a learner learns about their learning and metacognitive strategies refer to the methods used by learners to guide their learning. Oxford (2002) outlines four basic metacognitive strategies: connecting new information to old, selecting deliberate thinking strategies and planning, monitoring, and evaluating thought processes. As a result, learners take control of learning, plan and select strategies, monitor the learning process, correct errors, analyze the effectiveness of learning strategies, and change learning behaviors and strategies when necessary (Ridley et al., 1992).

The concept of metacognition can be defined as "thinking about thinking" or "cognitions about cognitions" (Bruning, Schraw & Norby, 2014, p. 79; Gilbert, 2005, p. 15; Hall, Bowman, & Myers, 1999, p. 99; Karakelle & Saraç, 2010, p. 46; Tracey & Morrow, 2017, p. 78). As described by Schraw and Dennison (1994), "metacognition is the ability to think, understand, and control one's own learning" (p.460). According to ÖZsoy 2008), metacognition refers to awareness of one's own mental processes. Metacognition recognizes what a person is learning through self-

awareness and organizes education and training activities accordingly (Özbay & Bahar, 2012, p.159). There is a simultaneous relationship between cognition and any process or product occurring in the brain.

Metacognition designates following and controlling cognition. Whereas cognitive processes facilitate the transformation of learning materials and they are directly related to learning goals. Therefore, it is extremely difficult to determine whether a product occurring in the mind is related to a cognitive process or a metacognitive process (Başaran, 2013, p.227). There are two interrelated aspects of metacognition. First is knowing what skills, tactics, and resources a person needs in a task and second is knowing when and how to use these skills, tactics, and resources to make the task a successful outcome (Schunk, 2009, p.186; Mokhtari & Reichard, 2002, p.249; Bang & Zhao, 2007, p.41). When metacognitive skills are possessed, learning takes place spontaneously. Metacognition is actually a way of learning to learn (Çakıroğlu), 2007, p.8). Individuals' metacognitive experiences and perceptions determine their ability to perform at different levels. As part of the process of developing intelligence and basic skills, experience plays a significant role. However, metacognition is one of the most important aspects of using one's cognitive abilities. It is clear from Hartman's (1998) work that metacognition plays a prominent role in learning and teaching since it impacts many factors such as gaining, understanding, remembering, critical thinking, and problem-solving.

2.3. Meta-cognitive Reading Strategies and Comprehension

There has been growing recognition that metacognitive reading strategies are crucial to understanding and linked to learners' success. As a result of metacognition, students are able to use reading strategies more effectively and competently than their unsuccessful peers (Carrell, 1989; Sheorey & Mukhtari, 2001; Zhang, 2001; Zhang and Wu, 2009. Based on Sheorey and Mukhtari (2001), skilled and unskilled readers differ primarily in their awareness of strategy reading processes and actual use of strategies. A skilled reader uses metacognitive strategies effectively, while a less proficient reader has little metacognitive awareness. According to Brown (1980) and Flavell (1979), the primary difference between skilled and unskilled readers lies in their ability to "engage in deliberate activities that require planful thinking, flexible strategies, and periodic self-monitoring" (Paris & Jacobs 1984, cited in Sheorey & Mokhtari 2001, p. 433). In light of these findings, researchers have examined the effectiveness of teaching metacognitive strategies to all readers. As part of his research, Barnett (1988) examined the effects of metacognitive awareness and reading strategies on reading comprehension. According to the study findings, the use of strategies is linearly associated with reading comprehension. There is a greater benefit for students who use different strategies in reading in comparison to those who do not. Many different studies of metacognition have been linked to an extensive variety of positive academic outcomes for students including improved test scores and performance on intelligence tests.

3.   Methodology

Students at BSU, who are non-natives, have a lot to read during the limited time of their university education, so it is important to examine how much they are aware of metacognitive reading strategies and how they use them. This study analyzed students' reported awareness of metacognitive strategies and their use of them before, during, and after reading academic texts in English using a questionnaire for that purpose. As well as determining the types of strategies students use when reading academic texts and analyzing whether the reported results reflect their understanding of the text, the research aimed to determine what types of strategies students prefer when reading academic texts. In addition to the questionnaire, students took a comprehension test to determine their level of reading proficiency. Therefore, this article addressed the following questions to answer:

1.   Do the non-native students of BSU use metacognitive reading strategies in reading academic texts?
2.   Is there any relationship between the students' strategy use and reading comprehension?

The purpose of this study is to investigate how BSU graduate students use metacognitive reading strategies. This study's results are important because they identify the metacognitive reading strategies used by university students. These results are expected to be helpful to researchers working on reading instruction.

3.1. Research Design

The research method used in this study is survey design. The investigator selects a sample of respondents from a target population and administers a questionnaire to collect data on variables of interest. Surveys are used to learn about people's attitudes, beliefs, values, demographics, behavior, opinions, habits, desires, ideas, and other types of information (McMillan & Schumacher, 2014).

3.2. Participants

The population of the study comprises of graduate non-native students of Bluefield State University. A total of 34 students from different departments: Education, Psychology, Business, Chemistry, and Science departments. These students from the University of Bluefield were randomly selected as participants for this study. They are members of the International Students Organisation (ISO) within the University. They speak English as a second language. The researcher selected a sample of 34 respondents from a target population (ISO) and administered a questionnaire to collect information on variables of interest. He conducted this study in person and investigated the metacognitive issues in reading comprehension. The investigator used a survey to get the students' ideas and opinions. The age of the students ranged from 16 to 40 years.

3.3. Data collection tool and analysis

A metacognitive reading questionnaire developed by Başaran (2013) was used to determine the metacognitive reading strategies used by non-native students at BSU. This form consists of four parts: Demographic information in the first part, before reading in the second part; in the third part During reading; the last part is After reading the text (stages of reading). The questionnaire was developed on a three-point rating scale ranging from 1 to 3 (1 = very less strategy use (never); 2= sometimes strategy use (sometimes); 3 = high strategy use (always). The students should read each statement and circle the number that applies to them, indicating how often they use the reading strategy. As such, the higher the number, the more often the strategy is perceived to be used. The majority of surveys describe the incidence, frequency, and distribution of specific characteristics of identified populations (McMillan & Schumacher, 2014, p. 254). Application data was uploaded to the computer, and Microsoft Excel was used to calculate percentages and frequency.

4. Results

The data in Table 1 shows that students frequently use pre-reading metacognitive reading strategies. It indicates that students determine the purpose of reading and control the physical condition of the environment in which they read. In other words, they use fast browsing before reading a text and guess the content of the text by looking at the visual aid of the text.

Table 1. Metacognitive reading strategies used before reading by BSU students

Before reading the text	Never		Sometimes		Always	
	F	%	F	%	F	%
1. I determine my reading purpose (study, entertainment, memorization, etc.).	2	5.88%	11	32.35%	21	61.76%
2. I quickly review the text to understand the type and subject of the text.	1	2.94%	18	52.94%	15	44.12%
3. I guess the content is based on the text images.	1	2.94%	15	44.12%	18	52.94%
4. I guess the content of the text by looking at the title.	2	5.88%	17	50.00%	15	44.12%
5. I decide how to read by looking at the type, length, and subject of the text.	5	14.71%	15	44.12%	14	41.18%
6. I prepare questions in my mind about the subject.	3	8.82%	13	38.24%	18	52.94%
7. I plan on what to do mentally during and after reading before I read the text.	8	23.53%	12	35.29%	14	41.18%

It can be understood from Table 2 how often students use metacognitive strategies while reading a text. They do take notes while reading the text and they try to find and understand ideas that are not expressed clearly in the text. Their mental processes work well when they read the text as they repeat that in their minds and check how much they understand. Based on these findings, it can be concluded that students do not distinguish significant from insignificant information when they note important parts of a text.

Table 2. Metacognitive reading strategies used during reading

While reading the text	Never		sometimes		Always	
	F	%	F	%	F	%
1. I imagine what is told in the text.	3	8.82%	19	55.88%	12	35.29%
2. I underline important information to better understand.	1	2.94%	18	52.94%	15	44.12%
3. I take notes about the text.	4	11.76%	9	26.47%	21	61.76%
4. I read slowly, if necessary, and fast when necessary.	2	5.88%	22	64.71%	10	29.41%
5. I read the parts I do not understand in the text more slowly and carefully.	1	2.94%	27	79.41%	6	17.65%
6. I try to find the answers to the questions that appear in my mind about the subject in the text.	1	2.94%	14	41.18%	19	55.88%
7. I connect the information I've already learned with the information I already have.	2	5.88%	20	58.82%	12	35.29%
8. I try to understand the main idea of the text.	1	2.94%	27	79.41%	6	17.65%
9. I check how much I understand the text.	1	2.94%	15	44.12%	18	52.94%
10. I repeat in my mind the part I read from time to time.	8	23.53%	6	17.65%	20	58.82%
11. I try to find and understand ideas that cannot be expressed clearly in the text.	1	2.94%	13	38.24%	20	58.82%
12. I try to understand the meaning of the words I do not know using the internet or dictionary.	0	0.0%	17	50.00%	17	50.00%
13. I guess the meaning of the word I do not know by looking at the sentence in which it is found.	0	0.0%	18	52.94%	16	47.06%
14. I will not understand.	0	0.0%	11	33.33%	22	66.67%
15. I think that what I read does not give me new information	22	64.71%	1	2.94%	11	32.35%

After reading, the majority of students utilize metacognitive reading strategies, as seen in Table 3. Based on these findings, it can be deduced that students generally evaluate, review and control their understanding of the text after reading.

Table 3. Metacognitive reading strategies used after reading

When I finish reading the text	Never		Sometimes		Always	
	F	%	F	%	F	%
1. I evaluate my reading performance.	4	11.76%	12	35.29%	18	52.94%
2. I repeat the important information in the text and try to understand the whole text.	1	2.94%	19	55.88%	14	41.18%
3. If necessary, I read the text again.	1	2.94%	19	55.88%	14	41.18%
4. I evaluate whether the content of the text is consistent with its title.	2	5.88%	13	38.24%	19	55.88%
5. I summarize what I have read to remember the text.	5	14.71%	7	20.59%	22	64.71%
6. I review the text.	2	5.88%	12	35.29%	20	58.82%

5. Discussion and Conclusion

According to the study conducted at BSU, students frequently use metacognitive reading strategies before reading, during reading, and after reading. In the end, they evaluate the text and their comprehension status based on the important parts of the text. Reading metacognitive strategies is commonly observed before reading by students. In the process of reading, students examine the physical conditions of the environment, make them available for reading, and determine the purpose of their reading strategies during reading the text. In addition to fast browsing, they consider how the information in the text will be utilized before reading the text. The pre-reading stage focuses on how to read and how to succeed at reading.

Students often use metacognitive reading strategies during reading. A student's ability to visualize what is described in the text, distractions when reading, etc. In addition, they rewrite the text, read the slower and harder parts, re-read the parts they have difficulty understanding, avoid passing over parts without understanding, underline the oblique or dark places, and use more. They take notes, highlight important information, deconstruct complex sentences, read like they're telling complex sentences, and guess the meaning of the unknown. By paying attention to the structure of the text at the time of reading, good readers are able to determine the rate at which they realize their understanding. They can control the understanding process during the reading process and focus more on important points, so as to realize the understanding, connect their predictions to the results appropriate to the text, and try to analyze complex expressions.

Reading strategies are reviewed, appropriate strategies are determined, and an attempt is made to understand the text structure, and find ways to make inferences, to be stored in memory, which may be required in subsequent arrangements. In case of need, resources such as dictionaries, spelling guides, encyclopedias and the general Internet can be used. It has been observed that a majority of students engage in metacognitive reading strategies after reading. It is possible to interpret these findings as students are evaluating the text after reading and controlling their understanding of it. Besides, using evaluation strategies helps students compare and analyze the information they get from the text. They underline important information, imagine what they have read, take notes about the text and most importantly, they think how to apply what was learned in real life. In other words, metacognitive reading strategies are about the reading comprehension and reading activity in which the students evaluate reading activity, determine the methods and techniques that will be adopted in the future readings. Therefore, this study approach aims at preparing students for becoming good readers in the future, as well as raising their awareness of the issue of reading.

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