

An overview of metacognitive strategies in reading comprehension skill

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**AN OVERVIEW OF METACOGNITIVE STRATEGIES
IN READING COMPREHENSION SKILL
OKUDUĞUNU ANLAMA BECERİSİNDE ÜST-BİLİŞSEL STRATEJİLERE**

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Abstract

A universal agreement among scholars is that reading is one of the most difficult skills to develop a high level of proficiency for foreign language learners. A vast amount of research within the field of foreign language has indicated that reading comprehension is an interactive, constructive, meaning-making process, also entails the use of certain skills, and specific components. In that sense, the concept of metacognition is a valuable and a critical tool in reading comprehension skill. Because, both experimental and descriptive studies claimed that metacognitive strategies play an outstanding role in enhancing comprehension in reading. Therefore, the use of metacognitive strategies in the reading process has been considerably supported as a remarkable aid for its positive effects of employing in reading process. With the ever-growing significance of metacognitive strategies, this review study mainly aims to indicate the necessity of teaching metacognitive strategies to the students and shed light on metacognitive strategy use in reading skill in English as a foreign language (EFL). Namely, this paper attempts to explore the necessities of using metacognitive strategies and their functions through the reading comprehension literature. Furthermore, the views of prominent scholars about the use of metacognitive strategies and the raising of metacognitive awareness in reading comprehension skill are elaborated from different perspectives. To this end, the current study is framed around to provide a deep and clear understanding about close relationship between reading and reading comprehension process, and then certain different definitions and the functions of metacognitive strategies in reading are presented. Afterwards, diverse taxonomies of metacognitive strategies in literature are explored. Additionally, the relation between metacognitive strategies and reading comprehension in EFL classrooms is deeply explained. Finally, alternative effective metacognitive reading strategies and strategy-based models are represented to promote the employment of metacognitive strategies among EFL readers.

Keywords: Reading, Reading Comprehension, Cognition, Metacognition, Metacognitive Awareness

Öz

Okuma becerisinin yabancı dil öğrenenler için yüksek yeterlilik düzeyinde geliştirilmesi en zor becerilerden biri olduğuna dair ortak bir görüş vardır. Yabancı dil öğrenimi alanında yapılan oldukça fazla sayıdaki araştırma, okuduğunu anlama becerisinin okuyucu ile yazar arasında karşılıklı iletişimi gerektiren bir anlam çıkarma süreci olduğunu ve bazı özel bileşenler gerektirdiğini öne sürmektedir. Bu anlamda, üstbiliş kavramı okuma becerisinde değerli ve çok önemli bir kavramdır. Çünkü, üst-bilişsel stratejilerin okuduğunu anlamayı geliştirmede üstün bir rol oynadığı yapılan deneysel ve betimsel çalışmalarla da ortaya konmuştur. Bu nedenle üst-bilişsel stratejilerin kullanımı okuduğunu anlama sürecine yaptıkları önemli katkılardan dolayı hep desteklenmiştir. Giderek artan öneminden dolayı, bu çalışma üst-bilişsel stratejilerin yabancı dil okuma derslerinde öğrencilere mutlaka öğretilmesi ve kullanımının geliştirilmesi gerekliliğine vurgu yapmayı ve ışık tutmayı amaçlamaktadır. Bir başka deyişle, bu çalışma bilişüstü stratejilerinin kullanımının gerekliliği ve üst-bilişsel farkındalığın artırılmasıyla ilgili okuduğunu anlama alanında söz sahibi olan ünlü bilim insanlarının farklı görüşlerini de ortaya koyarak tartışmayı amaçlamaktadır. Bunun için, öncelikle yabancı dil sınıflarında okuma ve okuduğunu anlama ilişkisi detaylandırılmış, daha sonra biliş-üstü stratejilerin farklı tanımları aktarılarak üst-bilişsel stratejilerin görevleri sıralanmış ve alanyazında kabul görmüş farklı sınıflandırılmalar sunulmuştur. Ayrıca, biliş-üstü stratejilerin okuduğunu anlama sürecine katkıları, ve gerekliliğinin yanısıra biliş-üstü strateji kullanımı ve okuduğunu anlama arasındaki ilişki derinlemesine açıklanmaya çalışılmıştır. Son olarak, yabancı dil sınıflarında okuma çalışmalarında anlamayı geliştirici alternatif üst-bilişsel stratejiler ve strateji eğitimi modelleri sunulmuştur.

Anahtar Kelimeler: Okuma, Okuma Anlama, Biliş, Üst-Biliş, Üst-Bilişsel

INTRODUCTION

Reading is regarded as one of the essential skills to be taught in foreign language settings. Furthermore, it is noteworthy that reading is the most difficult skill to be developed as it is multidimensional in nature and a kind of complex mental process. Reading is assumed to be the primary means for learning new information and gaining access to interpretations in almost each aspect of our daily lives (Grabe & Stoller, 2001). Besides, it is defined as an interactive and dynamic process (Karbalaie, 2010), and a meaning-construction process (Al-Rubaye, 2012). As Nunan (1999: 249) states 'reading involves highly complex cognitive processing operations'. A wealth of studies related to reading process has appeared in both foreign language and L2 language settings. Researchers are in fairly strong agreement that reading is an active and complex process for making sense out of what you read. Indeed, reading is the capacity through

which the reader receives knowledge from a text and integrates it with his/her knowledge and assumptions (Grabe, 1991). Namely, reading entails combining information taken from the text with the reader's own background knowledge to make meaning (Anderson, 2003). In that reading is an active and fluent process including the reader and the text in building meaning (Anderson, 2004), it requires monitoring comprehension as a metacognitive activity (Baker & Brown, 1984).

Many researchers have argued that reading is a fluent and interactive process involving ever-increasing numbers of variables to make sense out of the text such as the employment of metacognitive strategies. Recent years have seen much debate on the deployment of metacognitive strategies in reading comprehension in EFL settings. It is reported that skilled readers are more able to reflect on and monitor their cognitive

arly evident that successful comprehension is associated with the effective use of metacognitive strategies in reading process. Hence, interest in metacognitive strategies has burgeoned in the three past decades. This has resulted in a growing demand for research in reading literature. Metacognition has emerged as one of the most salient constructs effecting the success in foreign language learning. Accordingly, this review study presents an overview of metacognitive strategies in reading comprehension in EFL contexts.

Reading and Reading Comprehension

Over the past decades there has been an upsurge of interest in reading research aiming to explore the components of reading process. According to the major claim made by some scholars, reading as a complex set of cognitive activities includes many diverse skills and related components. Undoubtedly, various definitions have been put forward for the term 'reading' so far. The notions such as rapid, purposeful, interactive, comprehending, flexible, and gradually developing explain reading ability (Grabe (1991: 378). In EFL settings, reading is assumed to be the core means for learning new information in target language. Virtually, reading is the essential means for learning more about any subject matter, or developing other abilities. Reading is a necessary skill since foreign language (FL) learners need to read to improve their other language abilities and skills (Richards & Renandya, 2002). As a receptive skill, reading enables learners to improve FL learning. Besides, reading is an active skill involving both the reader and the text to master success in language learning (Anderson, 2004). Recently, all researchers recognize that it is of vital importance to state the dynamic relationship between reading and reading comprehension. There remains great debate as to a causal link between reading and reading comprehension. Reading is a complex skill and reading comp-

rehension is the interaction of between the information (1982). In essence, reading fulfills the demand made by reader. The reader is responsible for making sense out of the text. In other words, reading comprehension is an interactive process of deriving meanings from a text (Rumelhart, 1977). In a somewhat similar manner, restating the idea made by Rumelhart, Grabe & Stoller (2001) maintain that reading requires the reader to draw information from a text and combine it with the experiences that the reader (he/she) already has. This interaction of information implies reading comprehension. Supporting these claims, it is posited that reading is an interactive process in which readers use their background knowledge and cultural experiences to interact with the text (Carrell (1988). The text, the reader, the author and strategies are combined together to define the act of reading (Anderson, 2003). As a very simple model of the process of communication, reading implies a kind of phenomenon that provides a direct communication between the reader and the author in both literary and informative scripts (Genç, 2007). Similarly, it is asserted that that reading is an interactive process which is a dynamic relationship between the text and the reader. The reader struggles to make sense out of the text. From this perspective, reading is a kind of dialogue between the reader and the text, or between the reader and the author. The reader may construct a personal interpretation of a text or may get the author's own intentions (Hedge, 2000).

The central concepts labelled as 'top-down', 'bottom up', and 'interactive' are the models of reading process. Top-down processes are characterized as higher-level processes such as discerning meaning at whole text level and using schemata or background knowledge to support comprehension (Erler & Finkbeiner, 2007). In other words, 'reading' is a selective process. It involves partial use of

available minimal language cues selected from perceptual input on the basis of the reader's expectation' (Goodman, 1970: 260). Top-down approaches or conceptual-driven processings underline the significance of networks of information stored in mind, and the reader's contribution to the text (Alderson, 2000). In contrast, bottom-up or data-driven processes included so-called lower-level processes, such as identifying words and basing comprehension on meanings at word and phrase level. Bottom-up approaches are serial models, where the readers begins with the printed word, recognises graphic stimuli, decodes them to sound, recognises words and decodes meanings (Alderson, 2000). The bottom up model is the 'common sense notion' (Goodman, 1986: 11). Reading is the process of decoding, identifying letter, words, phrases, and sentences to construct the meaning. These two metaphors described various processing directions during reading: from the reader to the text, and from the text to the reader. Interactive combine both the lower-level processes and higher-level processes (Erler & Finkbeiner, 2007). In this manner, reading process is an active 'psychological guessing game' (Carrell, 1998: 2). The efficient reading requires the readers to make predictions and hypothesis about the text content by relating the new information to their prior knowledge and by using as few language clues as possible. It is hypothesized that a reader needs to employ the text and his/her background information so as to get the meaning from a text. Thus, reading is viewed as a complex process requiring the interaction of readers shemata and the text. For Genç (2004), reading also entails raising awareness of the reader and the development of reading sensibility.

Based on the considerations, it is put forth that research on reading comprehension has deepened the understanding of ever-increasing numbers of factors as being key to reading comprehension. As a kind of complex cognitive process, reading comprehension

requires the knowledge of metacognitive reading strategies and conscious use of these strategies to comprehend the text.

Metacognitive Strategies

During the 1990s, there continued to be the growing debate about the use of learning strategies in language learning. A major claim of learning strategy research is that strategies are observable, mental and conscious actions that learners take to develop their language learning (Anderson, 2004). Similarly, language learning strategies are 'particular approaches or techniques that learners employ to try to learn a language (Ellis, 1994: 76-77), also they are 'consciously and purposefully chosen by learners to regulate their own language learning' (Griffith, 2007: 2). The most noteworthy definition to date as follows: 'language learning strategies are operations employed by the learner to aid the acquisition, storage, retrieval, and use of information' (Oxford, 1990: 8).

Oxford (1990) has suggested a more comprehensive and detailed classification model of learning strategies. Language learning strategy system is classified into two main categories as 'direct strategies' and 'indirect strategies' (Oxford, 1990: 37). As one of indirect strategies: "Metacognitive strategies allow learners to control their own cognition and to coordinate the learning process through using functions such as centering, arranging and planning, and evaluating". Metacognitive strategies (e.g., identifying one's own learning style preferences and needs, planning for an L2 task, gathering and organizing materials, arranging a study space and a schedule, monitoring mistakes, and evaluating task success, and evaluating the success of any type of learning strategy) are employed for managing the learning process overall (Oxford, 2003: 12). In other words, 'metacognitive strategies provide a way for learners to coordinate their own learning process' (Oxford, 1990: 136). Nonetheless, metacognitive strategies may also divided into three basic strategy groups as follows: Plan-

ning, monitoring, and evaluating in another significant taxonomy developed by Chamot & O'Malley (1994). Planning strategies enable learners to plan and arrange his/her own learning process, while monitoring requires learner to check his production or comprehension, and evaluating strategies provide learners with evaluation and judgement of learning task. In essence, meta-cognitive strategies involve knowing about learning and controlling learning through planning (including advance organizers, directed attention, functional planning, selective attention and self-management), monitoring (checking, verifying, or correcting one's comprehension or performance in the course of language task) and evaluating the learning activity (checking the outcomes of one's own language learning against a standard after it has been completed) (Chamot & O'Malley, 1994).

The research on learning strategies

has highlighted that metacognitive strategies play a central role than the other learning strategies because once a learner understands how to regulate his or her own learning through the use of strategies, language acquisition should proceed at a faster rate (Anderson, 2005). Within the field of foreign language learning, metacognitive strategies have been studied by many scholars. Metacognitive strategies are higher order executive skills that entail planning for, monitoring, or evaluating the success of a learning activity' (O'Malley & Chamot, 1990: 135). It is highly emphasized the function of metacognitive strategies by arguing that metacognitive strategies enable learners to manipulate, control, and manage and evaluating the learning process. However, high metacognitive user is able to plan for effective learning, organize when to use specific strategies, know how to check the use of strategies, learn how to integrate various strategies, and evaluate the effectiveness of strategy use Anderson, 2015), also they

oversee, regulate, or direct the language learning task, and involve thinking about the learning process' (Vandergrift, 2002: 559), 'students without metacognitive approaches are essentially learners without direction or opportunity to plan their learning, monitor their progress, or review their accomplishments and future learning directions' (O'Malley & Chamot, 1990: 8). Namely, metacognitive strategies enable learners to play active role in the process of their own learning, to regulate, manage, and direct their own learning and to judge what they have learned. In support of this view, it is maintained that metacognitive strategies play "a significant, positive, direct effect on cognitive strategy use, and has an executive function over cognitive strategy use in task completion" (Purpura, 1999: 61). Because, metacognitive strategies are essential factors which go beyond cognitive devices and enable learners to coordinate their own learning process (Oxford, 1990). As for higher order skills, metacognitive strategies are as follows: 'thinking about the learning process, planning for learning, monitoring of comprehension or production while it is taking place, and self-evaluation after the learning activity has been completed' (O'Malley & Chamot, 1990: 8). In link with aforementioned functions of metacognitive strategies, it is averred that metacognitive strategies are 'executive processes associated with the regulation and management of learning, and include strategies used to plan a task, to monitor a task in progress, and evaluate the success of a task after its completion' (Chamot, 1995: 15).

Research suggests that there is a wide repertoire of metacognitive strategies available that efficient reader employs to meet best each reading purpose. The major metacognitive strategies are: Integrating new information to the previous knowledge, selecting thinking strategies deliberately, and planning, monitoring, and evaluating thinking proces-

ses (Dirkes, 1985: 96).

Among learning strategies, metacognitive strategies have recently drawn the attention of educators and researchers as they are believed to enhance reading comprehension. In conjunction with the increasing popularity of metacognitive strategies, studies were conducted with the view of determining the effects of strategy use in comprehension. The strategies in reading process have been revealed to be of paramount importance in learning of a second or foreign language. Reading strategies are defined as mental operations or comprehension processes (Abbott, 2006), the mental activities (Aebersold & Field, 1997), mental processes (Cohen, 1990), conscious mental action or series of actions (Gardner, 1987), intentional actions (Erler & Finkbeiner, 2007) that readers choose and use in order to construct meaning (Gardner, 1987), to make sense out of what they read (Bamett, 1989), to overcome comprehension failures (Singhal, 2001), to facilitate reading at any level of processing (Erler & Finkbeiner, 2007). Although, reading strategies are mainly categorized as metacognitive and cognitive reading strategies, recent research in reading strategies has focused on metacognitive strategies. Metacognitive strategies are stated as being aware of individual's his/her learning processes and knowing to control, monitor and evaluate these processes in learning process (Heo, 2000).

Metacognition and Metacognitive Strategies in Reading Comprehension

Reading comprehension as a cognitive process requires the metacognitive awareness and regulation of one's thinking during the reading process by means of planning, monitoring, and evaluating. In other words, metacognitive strategies in reading involves thinking about their thinking while they doing a reading task and managing his/her own learning. A good reader firstly plans and organize, then observes, controls his reading process using metacognition (Pintrich, Wolters & Baxter, 2000). In essence, metacogni-

tion is the key factor required for reading comprehension.

Flavell defined metacognition as 'one's knowledge concerning one's own cognitive processes and products or anything related to them' (1976: 232). Metacognition is a concept that refers to 'cognition about cognition or thinking about thinking' (Carrell, 1998: 1). Metacognition or metacognitive knowledge includes monitoring actively and regulation and orchestration of cognitive processes to attain cognitive goals. Metacognition is a conscious, a deliberate, a planned and an intentional mental processing used to achieve cognitive learning tasks (Flavell, 1971). In reading skill, metacognition entails conscious awareness, monitoring and controlling of one's own learning progress or checking the comprehension process.

Metacognition or metacognitive awareness refers to be aware of one's own thinking process. Metacognitive awareness entails managing and regulating reading process by planning to use necessary strategies with a learning task, then monitoring the person's own performance on an ongoing reading process by checking the effectiveness of reading strategies employed, and finally by evaluating the strategy use upon task completion (Chamot, 1998). Metacognition is multi-dimensional, and domain-general in nature, it differs from cognition. Metacognitive knowledge is the knowledge of cognition such as knowledge of skills and reading strategies that work best for learner, and how and when to employ a variety of strategies (Schraw, 1998). As for metacognitive regulation, it refers to controlling the reader's own thinking through planning, monitoring comprehension, evaluation the process (Schraw & Dennison, 1994).

In reading, metacognitive processing can be expressed through strategies, which are 'procedural, purposeful, effortful, willful, essential, and facilitative in nature' (Alexander & Jetton, 2000: 295). Strategies are procedural, purposeful, willful, effortful, facilitative

and essential (Alexander, Graham & Harris, 1998). Hence, skilled readers are more able to reflect on and monitor their cognitive processes while reading. They are aware not only of which strategies to use, but they also tend to be better at regulating the use of such strategies while reading' (Sheorey & Mokhtari, 2001: 445). Moreover, 'strategic reading is not only a matter of knowing what strategy to use, but also the reader must know how to use a strategy successfully and orchestrate its use with other strategies. It is not sufficient to know about strategies; a reader must also be able to apply them strategically' (Anderson, 1991: 468-469). Nonetheless, traditional method of teaching reading—where the students activate their background knowledge about a text topic, review relevant vocabulary, read the text, and answer comprehension questions—will not elicit the kinds of behaviors that distinguish effective readers. Increased self-awareness of one's process of reading is needed for students to make more efficient use of a wider range of strategic behaviors (Janzen, 2001: 372). The ways of increasing metacognition in classroom context as follows: promoting general awareness of the importance of metacognition, improving knowledge of cognition, improving regulation of cognition, and fostering environments that promote metacognitive awareness (Schraw, 1998). Metacognitive knowledge or metacognitive awareness comprises knowledge of the person, task, and strategy components that affect cognition. Knowledge of strategy variables comprises the individuals' knowledge about different strategies for cognition including memorizing, thinking, reasoning, problem solving, planning, studying, reading, writing. Metacognitive knowledge includes both knowledge of strategies and conditional knowledge of when and why to use these strategies. (Pintrich, Wolters & Baxter, 2000). Metacognitive knowledge is an outstanding component skill in reading. In that, metacog-

nitve knowledge is an awareness of one's mental process and the ability to reflect on what one is doing and the strategies one is employing while reading (Grabe, 1991: 379). The extensive body of research indicating the impacts of metacognitive strategies on reading appears to have initiated an ongoing debate in foreign language process. There is widespread consensus among the researchers that the deployment of metacognitive strategies in reading process promote reading comprehension. A large body of research in both foreign language and second language reading has focused on metacognitive strategy use in reading comprehension as follows: Hosenfeld, 1977; Haupman, 1979; Grellet, 1981; Langer, 1984; Devine, 1984; O'Malley, Russo, Chamot & Stewner-Manzanares, 1985; Padrón, 1985; Carrell, 1985, 1989a, 1989b; O'Malley, 1987; Pressley, Borkowski & Schneider, 1987; Sarig & Folman, 1987; Sarig, 1987; Harris, Graham & Freeman, 1988; Barnett, 1988; Pressley & Afflerback, 1995; Upton, 1997; Sheorey & Mokhtari, 2001; Mokhtari & Reichard, 2002; Zhang, 2001; Mokhtari & Reichard, 2004; Phakiti, 2006; Çubukçu, 2008; Martinez, 2008; Alsamadani, 2009; Razi, 2010; Alsheikh & Mokhtari, 2011; Takallou, 2011; Karami1 & Hashemian, 2012; Alhaqbani & Riazi, 2012; Yaman & Çakıcı, 2013; Zhang & Seepho, 2013; Korotaeva, 2014; Nejad & Mahmoodi-Shahrehabaki, 2015.

Certain contributive means such as metacognitive strategies are offered as boosting and supporting factors in reading comprehension process. Erler & Finkbeiner (2007) posited the effect of metacognitive strategies on comprehension as they are influenced by interactive conceptualizations of reading in L1 and L2. They further maintained that successful comprehension was associated with the employment of metacognitive strategies. Because, metacognitive reading strategies include 'having a purpose or plan in mind, previewing the text as to its length and organiza-

tion, or using typographical aids and tables and figures` (Sheorey & Mokhtari, 2001: 6).

Metacognitive reading strategies are divided into five essential components as follows : (a) preparing and planning for effective reading; (b) deciding when to use particular reading strategies; (c) knowing how to monitor reading strategy use; (d) learning how to orchestrate various reading strategies; and (e) evaluating reading-strategy use. These five strategies are related to each other as a process to accomplish a reading task (Anderson, 2004). Based on these assumptions presented above, it is suggested that a reader determines and chooses the most appropriate and efficient metacognitive reading strategies that work best, knows when to need to employ or apply these strategies while reading, is consciously aware of how to monitor strategies during reading process interactively, also knows how to incorporate a variety of reading strategies when necessary, and evaluates the effectiveness of strategies after fulfilling the reading task.

Metacognitive reading strategies are employed to monitor or regulate the cognitive strategies (Devine, 1993) . Skimming a text for key information require "the use of cognitive strategy, whereas assessing the effectiveness of skimming for gathering textual information would be a metacognitive strategy" (Devine, 1993: 108). Metacognitive reading strategies entails thinking about the learning process, planning for learning, monitoring or checking of comprehension, and self-evaluation of learning after the language task is completed (Skehan, 1993). Moreover, metacognitive strategies help students to focus their attention to understand the content, to connect prior knowledge with new information and to code them in their minds (Paris & Jacobs, 1984).

Metacognitive reading strategy use is classified in three broad categories as "Global Reading Strategies (GLOB), Problem Solving Strategies (PROB) and Support Strategies (SUP)", and they are defined in detail as follows: Global Reading Strategies (GLOB) help

learners to control or deal with their reading through deliberate, cautiously arranged techniques (e.g. having a target, previewing the reading text with regard to its design and arrangement, or utilizing graphs, tables, and figures. Problem Solving Strategies (PROB) are the activities and processes performed by the readers while they are dealing with the text directly. Readers use these strategies as confined, attentive techniques when they have problems in comprehending texts. For instance, adapting to reading speed when the textual information becomes easy or difficult to understand, predicting the meanings of unknown vocabulary, and reading the text again to understand the text better. Support Strategies (SUP) are essential assistance system aimed to support the reader in terms of understanding the text. (e.g. using a dictionary, note-taking, underlining, or highlighting textual information) (Mokhtari & Sheorey, 2002: 436). Besides, metacognitive reading strategies are divided into three main groups: planning (pre-reading), monitoring (during reading), and evaluating (post-reading) strategies (Alsheikh & Mokhtari, 2011; Anderson, 2003; Baker, 2008; Devine, 1993).

How To Teach Metacognition

It is previously claimed that an efficient reader engaged his background knowledge to make sense out of the text by planning, monitoring and evaluating the necessary metacognitive reading strategies. Indeed, a good reader employs a full range of strategies in combination consciously and purposefully. Hence, language learners should receive metacognitive reading strategy training in classroom settings. Strategy awareness instruction programs should be made available to the learners. Strategy instruction should be an essential part of language learning process, since it helps students gain greater proficiency, confidence and self-awareness (Oxford, 1990, Griffiths, 2003). Strategy training can promote students' metacognitive knowledge and result in autonomous strategy use

instruction empowers students to promote their autonomy (Cohen, 1998). Therefore, it is necessary to address a number of methodological issues such as the explicitness of training, its integration in the language curriculum, the design and evaluation of the Strategy Based Instruction (SBI) programme before implementing SBI. Foreign language teachers should primarily model for their learners by integrating higher order thinking strategies into reading practices, and also raise their learners' consciousness of what metacognitive strategies are, how and why they should deploy them. It is needed to increase the learners' understanding of metacognitive knowledge about reading and reading strategies to make them active and constructively responsive readers (Sheorey & Mokhtari, 2001). However, it is not enough to know suitable reading strategies. Language students must be able to regulate or monitor the employment of such strategies to ensure success in reading comprehension (Baker & Brown, 1984).

Based on the aforementioned review of past research, it is declared that the concept of metacognition has been a prominent focus of attention in reading comprehension. In particular, metacognition provides readers to manage and control over the reading process. The students as efficient readers monitor their understanding by planning and choosing necessary strategies, then evaluate the interactive process of reading comprehension by checking the effectiveness of the strategies employed. Metacognitive knowledge enables readers to make use of effective metacognitive strategies consciously to compensate for possible weaknesses. Therefore, foreign language learners need to receive metacognitive strategy training explicitly and gradually in reading courses. Foreign language teachers should raise students' awareness as to metacognitive strategies and train them how to use diverse strategies in reading comprehension

process properly and efficiently. In that, the students with higher metacognitive awareness are more skilled at planning, monitoring, and evaluating the metacognitive and cognitive strategies in comprehension process more efficiently. Thus, the vast increase in metacognitive knowledge leads to better reading comprehension performance.

Janzen & Stoller (1998) offer a strategy training program involving choosing a text appropriate for students' level, selecting strategies for training, planning lessons for the presentation of strategies, and adapting the instruction of strategies according to students' needs. In addition, according to Livingston (1996), the most effective metacognitive instruction should involve both metacognitive knowledge and metacognitive regulation. Namely, the instruction should provide the learner with both knowledge of cognitive processes and strategies, and experience or practice in using both cognitive and metacognitive strategies and evaluating the outcomes of their efforts.

↗ The research on the issue of strategy training suggests the following implications:

1. Strategy training should be formed as an integral part of regular classroom events.
2. Strategy instruction should be embedded in meaningful communicative context.
3. Students should be taught how to identify and analyze their preferred learning strategies by means of diaries, learning journals, interviews, and surveys.
4. Teachers should provide explicit explanation and modeling of strategy use, and provide necessary opportunities for practice (Oxford, 2002: 122).

↗ Through learning strategy training, Larsen-Freeman & Anderson (2011: 185)

1. determine their strength and weakness in language learning,
2. study and decide certain language strategies contributing them to learn easily and effectively,
3. know how to implement and modify the strategy,
4. practice the new language learning strategy,
5. decide how to complete a language activity,
6. self-assess his or her performance,
7. being able to transfer the new strategy to different language situations.

➤ Strategy-based instruction is a sequence of four steps generally:

1. raising awareness of the strategies learners are already using,
2. teacher presentation and modeling of strategies so that students become increasingly aware of their own thinking and learning process,
3. multiple practice opportunities to help students move towards autonomous use of the strategies through gradual withdrawal of scaffolding; and
4. self-evaluation of the effectiveness of the strategies used and transfer of strategies to new tasks (Rubin, Chamot, Harris & Anderson, 2007).

Three models for language learning strategy instruction are presented by Chamot, Barnhardt, El-Dinary & Rubbins, 1999; Cohen, 1998; and Grenfell & Harris, 1999. These instructional models point out that the teacher should represent the new strategy to make the instruction explicit, and students should assess how well a strategy has worked, select certain strategies for a language task, and actively practice new strategies into the new language situations. All of the models in literature underline the importance of providing abundant practice opportunities to language learners to employ them independently and efficiently (Chamot, 2004). As a model of SBI the CALLA (Cognitive Academic Language Learning Approach) instructional design,

based on sociocultural learning theory, has been widely utilized (Chamot et al., 1999). The CALLA model is in favour of explicit strategy instruction and integration of strategy training into the meaningful language contexts and supports the idea of learner autonomy and self-direction in strategy based instruction. The Cohen model represents a different but related version of strategy-based instruction. That model proposes the appropriateness of selected strategies with the learners' their own learning styles. The Grenfell & Harris model entails the presentation of the new strategies employed, then helping students to design their personal plans to enhance their own learning, whilst the CALLA model proposes a remarkable step called as self-evaluation phase for students to provide a chance to practice strategies and relate them with new language contexts (Chamot, 2004).

As it is seen, a principled and comprehensive model of reading strategies is still missing (Rubin et.al.,2007). There is an urgent need for a great deal of further research in SBI at all levels of L2 reading with many different L2 languages, readers, and settings. Virtually, all studies involve instruction in metacognitive strategies either directly or indirectly, if for no other reason than that the metacognitive strategy of evaluating the use of a new strategy is an integral part of strategy intervention models.

CONCLUSION AND SUGGESTIONS

This review article is intended to provoke discussion and leads to reconsideration of metacognitive strategies in reading comprehension process. Furthermore, it is considerably noted that this study provides further evidence for the necessities of metacognitive strategy training in EFL contexts.

In the light of the considerations in related literature review, it is suggested that reading comprehension can be enhanced through systematic instruction in metacognitive language learning strategies. Explicit

teaching of metacognitive strategies enables learners to practise different strategies required for specific reading tasks and activities under the control of teacher's modelling, thereby develop self-direction and self-evaluation. Hence, EFL teachers should be encouraged to embed a strategy-based instructional program into the regular flow of the reading courses in a natural way. Integrating strategy-based instruction into the reading course is the most feasible and effective way to promote students' reading comprehension (Çakıcı, 2016).

In that sense, language learning strategies should be integrated into regular methodology employed in language classes, especially in EFL classes. It is not a smooth and easy process to integrate and employ strategies in EFL classes. Through organizing the variables like time, strategy selection, student background, and so on efficiently, teaching ELT students to deploy LLSs bring better performances in reading comprehension (Yaman & Çakıcı, 2013).

All in all, language teachers, teacher educators and curriculum designers in the realm of language learning should know that reading comprehension can be developed through systematic instruction in metacognitive language learning strategies. Explicit teaching, raising awareness, and providing necessary experience with these strategies can be suggested for better comprehension. In that respect, EFL teachers should teach the students regularly a wide repertoire of metacognitive reading strategies explicitly with reading practices and tasks so as to help them

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