

Reading and Listening in English Language Learning: A Critical Study of Cognition and Metacognition

Mohammed Al Sobaihi*

College of Languages and Translation Imam Muhammad bin Saud Islamic University, Saudi Arabia

Corresponding Author: Mohammed Al Sobaihi, E-mail: maalsobaihi@imamu.edu.sa

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ABSTRACT

This paper critically examines research in the field of cognitive and metacognitive strategies in teaching/learning reading and listening in the English language. In the FEL context, a thorough review of previous major studies has been conducted to determine the extent to which English learners benefit from reading and listening via using the said strategies. The results confirm the effectiveness of cognitive and metacognitive strategies in teaching/learning reading and listening skills and it is recommended that the educational policymakers include them in designing future pedagogical EFL programs.

Key words: Cognition, Metacognition, Reading, Listening

INTRODUCTION

Learning reading and listening, in the EFL context, is considered to require less effort to command compared to speaking and writing. Since they necessitate using certain learning techniques through which students are enabled to obtain a better understanding of the language, cognitive and metacognitive strategies can thus constitute an indispensable tool to help acquire the language through facilitating the process of learning.

Reading and listening skills, in turn, need to be investigated in terms of cognitive and metacognitive strategies to identify the extent to which they can help learners enhance their linguistic competence, whether behavioristic or mental. There has been a lot of research on learning strategies for effective language learning, the significance of which can be examined from two perspectives. First, when employed by EFL learners, these strategies enable instructors to incorporate bits of knowledge into the cognitive, metacognitive, social, and affective processes incorporated into dialect learning. Second, these strategies enable educators to have a better insight into the knowledge base of EFL learners and assist the less successful ones in adopting new procedures. Previous studies also show that educators need to include problem-based procedures in their classrooms that require informed consideration and are not utilized just naturally, and with all EFL learners without prior and simultaneous instruction. Metacognitive strategies are, therefore, used as a component of the information-processing theory to demonstrate an “executive” capacity and refer to the procedure

utilized by EFL learners as a way to monitor, manage and assess their learning processes. This paper aims to investigate the effect of using cognitive and metacognitive strategies on EFL learners’ receptive (i.e., input) skills of reading and listening.

Developing reading and listening skills for EFL students is of paramount importance. In more recent methodologies, there has been a fundamental shift from the conventionally pivotal role of the teacher in the learning process to that of the learner and recent studies tend to be more concerned with the emphasis on how learners learn a second language than how a teacher improves the teaching process (Abdelhafez, 2006). There have been numerous studies concerned with facilitating the progress in language learning through the use of a variety of strategies and almost all emphasize, and recommend, the application of advanced learning strategies to the process of learning a new language, so as to improve the process of language learning in the most effective way (Tabeei, Tabrizi & Ahmadi, 2013). Since the 1970s, these learning strategies have been visited by scholars and experts from various other fields such as psychology and linguistics (Kafipour & Naveh, 2011).

Reading and listening are considered receptive, or input, skills (Tabibian & Heidari-Shahreza, 2016). Understanding reading as a receptive skill is not only of great significance to various areas in academic learning but for a successful professional background and future learning experience as well (Zare-ee, 2007). Listening is the other essential receptive skill that usually develops faster than the productive skills of speaking and writing and it often influences both perceptive

skills and reading, as a receptive skill (Maasum & Maarof, 2012). Together, they constitute the core of successful language learning (Bidabadi & Yamat, 2011).

Teachers and students can employ cognitive and metacognitive learning strategies to develop students' receptive skills (Barrot, 2016), for which it is essential to establish cognitive and metacognitive strategies in foreign language learning, with a special focus on reading and listening skills. The effect of cognitive and metacognitive strategies on EFL learning has been confirmed by many studies (Rahimirad, 2014; Rahimi & Katal, 2013; Aghaie & Zhang, 2012). There are not, however, many studies that have comprehensively dealt with this issue, and therefore this article is conducted to bridge this gap. It specifically attempts to answer the following:-

RQ1:- How do metacognitive and cognitive strategies achieve learning the receptive skills of English?

RQ2:- How does research characterize comprehending the strategies of metacognition and cognition in acquiring the skills?

Thus, the present study aims at identifying the extent at which EFL learners perceive, employ, and benefit the strategies of metacognition and cognition at different levels of education.

LITERATURE REVIEW

Receptive Skills in the EFL Context

In the EFL context, and as receptive skills, listening and reading are considered passive skills. Learners are said to *receive* the language via listening and reading since they do not need to directly and consciously use the language in case of these skills (Moghadam & Rad, 2015). The receptive skills of listening and reading are complemented by the productive skills of speaking and writing. Receptive skills are considered fundamental in that, while learning a language, students first perceive the material through receptive understanding and it is only later that they go through the actual productive use of that language. According to Goh (2000), students usually first listen to the language and read the new information and, later, directly use it with their speaking and writing.

Problems in language learning are often the result of the inappropriate and ineffective application of learning strategies (Pammu, Amir & Maasum, 2014). Receptive and productive skills have a complex relationship with each other, where one cannot function without the other and the emphasis of one part of a skill is drastically reflected on the other. In other words, an emphasis on reading skills can indeed contribute to the development of students' ability to write, however, if the whole learning process focuses on just one set of skills, in this case the receptive skill of reading, students will be able to read and listen but not to speak or write properly (Tavakoli, 2014).

It is a recurrent theme (and challenge) in EFL classrooms where the teacher uses strategies that are more focussed on one set of skills, completely disregarding other skillsets (Tabibian & Heidari-Shahreza, 2016). Focussing on listening and reading, for instance, seems to result in students' ability

to understand the language to a high extent but not having the skills to produce it. According to the study of Tavakoli (2014), EFL students appear to have the ability to understand the language quite well, but when it comes to using English to speak or write in real-life situations, they fail to perform the task. Cognitive and metacognitive strategies have proved to help to comprehensively improve their skills.

In their research, Baker & Brown (1984) present a number of methods to stimulate receptive skills and achieve efficient comprehension. Decoding skills, for instance, can help students with their reading problems. For this, they suggest, reading should be introduced early, with, for example, the teacher describing the letters through their sounds. Wang (2016) believes that while reading, students comprehend the text either through its individual parts, such as words, or as a group of words in a larger context. In other words, teachers support the reading process either by connecting every word with their meaning or by providing meaning to a larger structure such as the sentence (Baker & Brown 1984).

According to Dabarera, Renandya & Zhang (2014), reading need not exclusively be limited to the classroom environment and teachers might assign reading tasks to be done at home. While occasional reading might improve, among others, the vocabulary of a student, extensive reading will allow a student to encounter unfamiliar words more frequently, which will consequently contribute to his or her acquisition of the language (Tabibian & Heidari-Shahreza, 2016). Tavakoli (2014) encourages teachers to allow students to question the text presented and raise discussions on certain matters. With that, their understanding of the text will improve, together with their vocabulary, while the discussion and the metacognitive aspect will encourage them to think and speak about it (Tavakoli, 2014).

Moghadam, Ghanizadeh and Pazhouhesh (2016) hold that, when it comes to listening as a receptive skill, a great number of EFL students have problems focusing on, and comprehending, the English language, especially in the early years of their studies. According to Goh (2000), this problem can be attributed to various reasons such as the nature of the text, its syntax, and/or personal factors such as the lack of motivation or valid previous exposure to the English language. Also, the cognitive demands of the content of the text might produce a great barrier for EFL students (Tavakoli, 2014). In order to address the issues EFL students face with listening, teachers need to identify recurrent issues and employ strategies to improve this situation. Only after the teacher understands where the problem lies, s/he can adopt a cognitive framework (Goh, 2000).

According to Barrot (2016), the best way for a teacher to address the issues students have in their comprehension, which is a direct reflection of their issues with listening, is through self-reports provided by students. They enable students to provide an overview of their difficulties with their comprehension of English. As Hong-Nam & Page (2014) further elaborate, self-reports allow students to understand their metacognitive processes and to speak objectively about what aspects of an audio or verbal text they could not comprehend. Moreover, self-reports include metacognitive, as

well as cognitive, difficulties that can pinpoint what exactly needs to be changed in a certain approach (Goh, 2000). With that, the teacher is able to introduce various strategies that can empower the students in their acquisition of language, whether in the form of cognitive and metacognitive strategies or in the form of accentuating another receptive or productive skill to improve the other.

Descriptions of Cognitive and Metacognitive Strategies in Research

Metacognition, according to Flavell (1976), is a learner's awareness of cognitive processes and products. Simply put, it is about how a person becomes aware of their knowledge and thought processes. In the EFL context, Zhang, Goh & Kunnan (2014) associate it with the awareness of the degree of understanding of a particular topic in the English language. As such, the metacognitive process is believed to have two elements: knowledge and experience (Sun, 2013). While knowledge is used to regulate cognitive processes, it is comprised of conditional knowledge and the knowledge of strategy variables. Experiences, on the other hand, have to do with the regulation of the metacognitive process (Hong-Nam & Page, 2014). These regulations manage learning, planning, monitoring, and evaluation of learning outcomes (Gursoy, 2004) and are, thus, skills that are beneficial to the learning process.

Learners need to be able to choose the right strategies and to make proper and effective use of available resources. This can be accomplished through, among others, setting the right goals, reading of the materials, asking the right questions, and analyzing the tasks at hand. These are crucial steps in learning (Rasouli, Mollakhan & Karbalaeei, 2013) since students set the goals that they want to accomplish and plan how to effectively and efficiently achieve these goals. Moreover, in order to train learners for receptive skills, EFL learners need to be able to control their learning processes. To this end, they need to supervise their studies so that maximum performance is achieved (Tabibian & Heidari-Shahreza, 2016). Keeping track of the learning process is critical, for it allows EFL students to keep track of their progress and seek help if/when faced with difficulties.

Evaluation is another useful cognitive strategy for EFL students to develop reading and listening skills. Students need to be consistently evaluated to determine how well (or badly) a certain task is accomplished. For example, when they perform poorly in comprehension (as a receptive skill), EFL students tend to seek help to improve their reading skills. Being equipped with diverse metacognitive skills is essential to help students achieve self-regulation and, thus, become better English readers. Various studies (Tabibian & Heidari-Shahreza, 2016; Balıkcıoğlu & Efe, 2016) have confirmed that cognitive and metacognitive strategies promote autonomy among learners and enable them to become self-directed learners who take responsibility for their learning process. Besides, these strategies can pave the way for future success in EFL learning and help learners set higher goals and attempt more challenging tasks (Aghaie & Zhang, 2012).

Research in the UK and the USA shows that problems with reading and listening in the English language as a foreign language is a recurrent issue (Rahimirad, 2014; Pammu, Amir & Maasum, 2014; Wang & Treffers-Daller, 2017). Studies show that over 56% of foreign students have issues in reading comprehension, listening, and reasoning. Research also shows that EFL students face problems either in listening to audio scripts and texts or comprehending written texts, which underlines the need to enhance effective cognitive and metacognitive techniques and strategies such as monitoring, evaluating and repetition that boost EFL students' learning of the receptive skills in the English language.

Receptive skills are a category of skills that include 'passive' skills such as reading and listening (Bidabadi & Yamat, 2011). Reading, according to Zare-ee (2007), is a receptive "psycholinguistic process that starts with a linguistic surface representation encoded by a writer and ends with meaning, which the reader constructs". Listening comprehension, in particular, is an activity in which the listener is the recipient of the data and, through a process-oriented activity, processes the "represented aural input step by step and combines background knowledge to information in the listening text" (Tabeei, Tabrizi & Ahmadi, 2013).

RESULTS AND DISCUSSION

Metacognitive and cognitive strategies measure learning outcomes and, as such, they can be adapted, required and trained (Tavakoli, 2014; Taghinezhad & Sadighi, 2017; Seyyedi, 2017). No matter what methodology is used, learners' success in critical thinking, reading, appreciation and outsourcing more data will be greater following the efficient use of metacognitive and cognitive strategies (Persian-Pour & Ghanizadeh, 2017).

Learning Achievement by Metacognitive and Cognitive Strategies

As for the first research question, a student who is conscious of his/her learning style and works on enhancing them takes in more than learners who are less mindful of their learning processes and mechanisms and, through deliberate and guided utilization of their metacognitive information, achieves their specific learning objectives (Balıkcıoğlu & Efe, 2016).

In a Chinese context, Wang and Treffers-Daller (2017) studied vocabulary acquisition and metacognitive awareness in learning English as a foreign language. Their findings revealed that the strongest predictor was vocabulary size while metacognitive awareness was the least important predictor. However, in the study of Persian-Pour and Ghanizadeh (2017), which investigated the correlation between the participants' metacognitive awareness pertaining to all subscales of the two metacognitive components and the participants' IELTS academic reading comprehension, the interconnection was significant. Part of its significance was due to the mechanism of the IELTS test and the planning that follows declarative knowledge. They concluded that a higher level of metacognitive awareness led to better performance in the IELTS reading section. Figure 2 shows the distribution of the strategies.

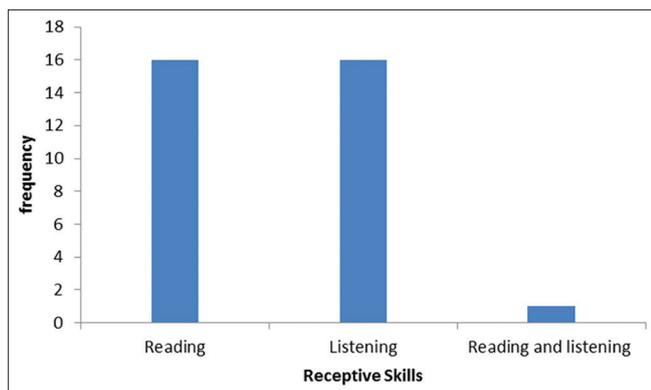


Figure 1. Shows the focus of the research

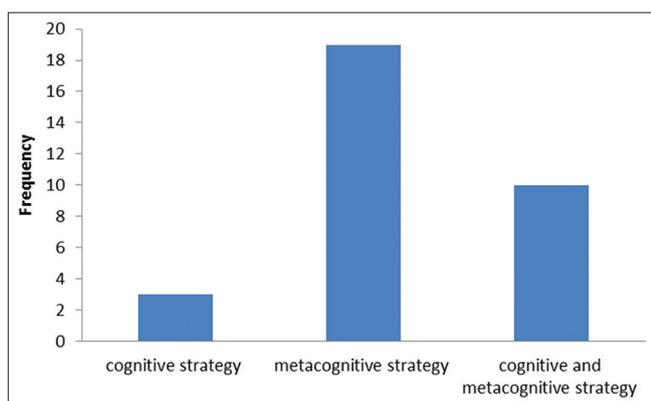


Figure 2. The distribution of the strategies

In an Iranian context, the study of Yaghoubi and Seyyedi (2017) found that cognitive strategies were more commonly used by male learners whereas socio-affective strategies were more commonly used by female learners, in TOEFL academic lectures. Taghinezhad and eds (2017) also studied the impact of comprehension strategies on the enhancement of listening comprehension. Their research indicated higher proficiency and a high degree of comprehension in the experimental group, compared to the control group.

In Kazakhstan, Zhussupova and Kazbekova (2016) studied the effect of metacognitive strategies on reading (comprehension). Their research concluded that metacognitive reading strategies could be developed by learners and reading comprehension was positively influenced by students' individual reading of, for instance, short stories. Zanjani and Izadpanah (2016) studied the effect of cognitive and metacognitive strategies on improving listening skill. They divided students into two hypothetical categories of 'effective' and 'ineffective' listeners and concluded that the former benefited from listening strategies. They further concluded that cognitive and metacognitive strategies interacted with socio-affective ones, sharing some components, and enhanced Iranian learners' listening comprehension.

Tabibian and Heidari-Shahreza (2016) also explored the effectiveness of cognitive and metacognitive strategies in reading and listening. It proved positive and significant, meaning there was a meaningful correlation between the use of cognitive and metacognitive strategies and EFL learners' reading and listening comprehension scores. Vahdany eds.

(2016) also investigated the possible correlation between cognitive and metacognitive strategies and EFL listening, stipulating the need for further training in such strategies as they proved effective.

In their research, Maftoon and Alamdari (2016) studied the effectiveness of teaching metacognitive strategies in metacognitive awareness and the listening performance of EFL learners and observed a considerable degree of variation in their listening performance and metacognitive awareness. Moghadam and Rad (2015) studied 'negotiated metacognitive assessment' as a tool for listening comprehension enhancement. Their study confirmed its effect on listening performance and offered some pedagogical implications to EFL students. Rahimirad (2014) also studied the effectiveness of metacognitive strategies instruction in EFL listening and reported that EFL learners showed significant and elevated performance when exposed to metacognitive strategies.

Barrot (2016) studied the application of metacognitive strategies to reading comprehension by using different types of texts, making sure that EFL learners used problem-solving strategies and support reading strategies. In his conclusion, he called for global use of these strategies, due to their success and effectiveness. Wang (2016) also studied the use of metacognitive strategies in listening comprehension in terms of the metacognitive pedagogical cycle. The results indicated that metacognitive pedagogical cycle could positively influence learners' listening skills in some cases while it could also contribute to learners' performance on three levels of metacognitive knowledge (person, task and strategy knowledge).

In their study in a Turkish context, at the university level, Balıkcıolu and Efe (2016) investigated the role of metacognitive strategies of EFL learners in their reading, concluding that the efficiency of metacognitive strategies could be noticeably augmented if they were integrated more frequently into reading lessons and segments.

In a Vietnamese context, Ngo (2015) studied listening strategies in the EFL setting. His study found that the use of social/affective strategies was more prevalent than the use of metacognitive and cognitive strategies. In a similar study, Tavakoli (2014) investigated the effectiveness of metacognitive strategy awareness on EFL learners' reading comprehension. He reported a positive correlation between metacognitive awareness of reading strategies and reading comprehension success. He also observed the significant impact of learners' metacognitive reading strategies knowledge on their proficiency in the English language. Gender-based differences in the practice of reading strategies were reported as insignificant in his study.

Zhang and Kunnan (2014) also investigated the use of metacognitive and cognitive strategies in EFL reading. They found that these strategies significantly affected students' lexico-grammatical reading performance. In their study, Hong-Nam and Page (2014) attempted to measure the extent to which metacognitive awareness and reading strategy were used in EFL learning. They found problem-solving strategies to be highly desired, preferred and used. No gender-based differences in the use of strategies were noticed.

Pammu and Maasum (2014) selected less proficient tertiary learners to examine the effect of metacognitive strategies on reading. They reported a high level of metacognitive awareness for the Problem Solving Strategy but there was also the need for further metacognitive awareness.

Zafarani and Kabgani (2014) studied the correlation between reading strategies and ESP learning. They found that clear instruction in summarizing strategy could positively enhance the ability and aptitude of ESP learners in reading comprehension and could help them to create a constructive attitude toward English reading. Tabeei, Tabrizi, and Ahmadi (2013) studied the effect of metacognitive strategies instruction on listening comprehension. Their research indicated their positive impact on listening comprehension and also insignificant gender-based differences upon their application. Rasouli, Mollakhan and Karbalaei (2013) also explored the effect of metacognitive strategies instruction on listening comprehension and concluded that these strategies could improve EFL learners' listening comprehension and observed that, as long as teachers modified certain learning strategies for academic purposes, high listening- comprehension achievement would be attained.

In Iran, Rahimi and Katal (2013) investigated the possible contribution of metacognitive strategies instruction to EFL learners' listening comprehension and oral language proficiency. The study showed that listening instruction significantly raised metacognitive awareness in both listening and speaking.

Characterization of Comprehending the Strategies of Metacognition and Cognition

For the second research question, two notions are important, according to Zare-ee (2007), knowledge about cognition and self-directed thinking. Self-directed thinking is, in turn, governed by evaluation, planning, and regulation activities. Metacognitive strategies are therefore employed by students in order to improve their comprehension of the foreign language and include techniques such as planning, monitoring, evaluating and problem-solving. However, Cognitive strategies are systems such as perception and information processing being used to influence the limitations in the learner's mental capacity that may impede better performance (Pammu, Amir & Maasum, 2014). They are specific techniques applied by learners to process the learned material better and include strategies such as repetition, "deduction, imagery, elaboration, note-taking, and translation" (Bidabadi & Yamat, 2011).

Malekzadeh and Ghafoori (2016), examined the effect of elaboration, note-taking and resourcing, as three cognitive strategies, on reading comprehension. Their study concluded that note-taking and resourcing developed learners' reading comprehension more/better than elaboration, with resourcing being the most effective. Maasum and Maarof (2012) examined the application of metacognitive strategies to reading academic texts. Their study indicated a variation, from moderate to high use of metacognitive strategy, by means of global, support and problem-solving subcategories.

In an Iranian EFL context, Aghaie and Zhang (2012) studied the impact of explicit instruction in cognitive and metacognitive reading strategies and strategy transfer on EFL students' reading. Their study revealed that the use of reading comprehension and reading strategies had a positive impact on strategy instruction and contributed to autonomous reading performances. Sadeghi and Langhroudy (2012) examined the difference between Field-dependent and Field-independent participants by means of cognitive and metacognitive reading strategies. Their study reported a significant difference between field-dependent and field-independent participants in terms of using general metacognitive and specific cognitive reading strategies, whereas no significant difference was witnessed when using general cognitive, as well as specific metacognitive, reading strategies.

CONCLUSION

The critical analysis of research evidently exposes the worthiness of metacognitive and cognitive systems as invaluable tools that help EFL students achieve real learning reading and listening. It also uncovers the lack of better understanding to effectively acquire these receptive skills both in teaching and learning. Hence, the use of metacognitive and cognitive strategies accounts for the variation on language performance across cultures. The analysis demonstrates the different techniques, methodologies and instructions being employed to measure the metacognitive and cognitive systems' efficiency in EFL teaching/learning. Their strong and positive contribution to learners' learning processes, therefore, recommend design new EFL programs consider, and intelligently employ, metacognitive and cognitive strategies for better development and enhancement of reading and listening comprehension.

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