ESL Students' Metacognitive Awareness of Their Reading Strategies

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ABSTRACT

Researchers who study metacognitive awareness of reading strategies emphasize the importance of understanding students’ knowledge about their reading strategies. Therefore, this study aims to identify the most used and least used metacognitive strategies presented by international readers. It presents the current reading strategies that international students use and why and how these strategies help them to overcome reading difficulties. Sixty-eight ESL students were assessed on their metacognitive awareness of reading strategies by using (MARSI), which is “the use of the metacognitive awareness of reading strategies inventory”(Mokhtari and Reichard, 2002). This inventory measures three kinds of reading metacognition. These strategies are: Global Reading Strategies (GLOB), which help readers set the initial stages of reading; Problem-Solving Strategies, (PROB), which focus on monitoring comprehension and adopting the strategies to have a better understanding of the text meaning, and Support Reading Strategies, (SUP), which includes the usage of mechanisms or tools to sustain effective interaction between readers and text. The results of the survey show the popularity of problem-solving and global reading strategies. In addition, the findings suggest that women had higher preferences for the support reading strategies than men. Overall, these results show that problem-solving and global strategies are the preferred strategies among students.
DEDICATION

I dedicate this thesis to my family for their endless love, support, and encouragement, and to my husband and my kids who helped me to be where I am today.

أخصص هذه الأطروحة لعائلتي على حبهم الذي لا نهاية له، ودعمهم وتشجيعهم ولزوجي وأطفالي الذين ساعدوني أن أكون حيث أنا اليوم.
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الإجابة على أسئلتي. كما أتقدم بالشكر الجزيل إلى معلمي في برنامج الماجستير الخاصة الدكتوره مارثا سافاج، الذي وافقت على أن تكون واحدة من أعضاء لجنة أطرحتي.

بالإضافة إلى المستشارين واللجان، أود أن أشكر جميع المعلمين الذين علموني في برنامج اللغة في جامعة غونزاغا ودعمهم وتشجيعهم بدءًا من برنامج اللغة حتى يومنا هذا. وأود أيضا أن أشكر طلابي ومعلم اللغة الإنجليزية الذين شاركوا في دراستي. على وجه الخصوص معلمين غونزاغا، الذي سمح لي بمراقبة فصولهم، وأجرا المسح ومقابلة طلابهم.
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List of abbreviations

ELL................................................................. English Language Learner
ELT............................................................... English Language Teacher
GU............................................................... Gonzaga University
MA/TESL............................... Master of Arts in Teaching English as a Second Language
As a student who was learning English as a foreign language in Saudi Arabia, I became interested in finding out what metacognitive strategies best help students to become independent readers. I want to encourage ESL/EFL students to become engaged in reading academic passages in English. Furthermore, seeing a lot of graduate students have difficulties with reading their academic assignments, despite going through the ESL program, got my attention. Then one day, I read an article by Lightbown and Spada, (2013) that talked about the importance of metacognitive awareness in second language acquisition, especially in reading. Throughout the article, there were a lot of strategies English learners could use in reading that would make the reading process more engaging and easier. I noticed that there were a lot of strategies that I never use while reading, causing me to struggle when reading academic articles. I decided to see whether ESL students use these strategies, and if so, what these strategies are and whether they are promoted consistently. In addition, I aimed to see if there are some beneficial strategies that ESL students do not use in their readings, as well as finding some implications on how they should be integrated in their language instruction. I recognized that it is my passion to see whether ESL students are aware of their metacognitive reading strategies and how these metacognitive reading strategies can be integrated in an English language classroom. Not being aware of the role of metacognition in facilitating language learning made me consider what English teachers and policy makers can do to help students acquire their target language more effectively through teaching metacognition.
1.1 The significance of this research

This research is essential for teachers of English as a second and foreign language, particularly to benefit students in academic contexts. It is also important for students who want to learn more about reading in English to know what strategies might help to develop this skill. This will be useful information for both policy makers and curriculum developers, so they know the benefits of metacognitive strategies, which should be introduced and used in textbooks. When the policy makers and curriculum developers know the advantages, they can adopt and incorporate these reading strategies in their books to meet the students’ expectations. It is also important for the students who are interested in becoming fluent and strategic readers in English. Lastly, it is important for ESL teachers to know the role of metacognition to reduce students’ difficulties when reading, regardless of the distinct differences between English and their first language.

1.2 Statement of the problem

In my experience, students complain how difficult it is for them to read an academic article that contains a lot of unknown and complex words. Some teachers I have talked to also state that their ESL students do not like to read in English. A few researchers investigated this issue and stated that the reason for students’ limited reading in their second language is due to students’ lack of time due to their studies and some logistical reasons such as no access to English books and not knowing what to read” (Crawford Camiciottoli, 2001, p.147). In my opinion, many students have a lack of metacognitive awareness in their language learning, and certainly I was one of these students. When I was in Saudi Arabia, I used to blame myself for not liking to read in English. However, after taking a second language acquisition class in my graduate program, I learned the importance of being aware of thinking in my second language.
This made me realize that I was not aware of the strategies that I should have used when facing difficulty learning new input.

1.3 **Specific research focus**

This research focuses on addressing the metacognitive strategies in reading used by ESL/EFL students. It presents the current strategies that international students adopt in reading and why, and discusses whether these strategies help them to overcome reading difficulties. This paper will identify actions that can be used to develop students’ reading proficiency. It also emphasizes the importance of metacognition in teaching English, as well as the advantages of teaching it explicitly to develop students’ reading abilities and their attitudes towards reading.

Considering what other researchers have found about metacognition, this paper aims to increase my personal understanding of ESL readers’ metacognitive awareness of strategies they use in reading. Thus, this study aims to address ESL students’ metacognitive reading strategies as well as their reading difficulties. My research questions are:

1. To what extent are ESL readers aware of their metacognitive strategies in reading?
2. What are the most used and least used metacognitive strategies identified by ESL readers?
3. Are there some strategies that ESL readers rarely use even though they are effective in enhancing students’ reading ability?
4. Are there any significant differences between low- and high-proficiency students in their perceived use of metacognitive reading strategies?
5. What are the challenges ESL students face when they are reading an academic article?
The definition and categorization of metacognition will be addressed in the first section of the literature review, followed by why it matters in teaching English as a foreign and second language. Then, the relationship between reading and metacognition and the necessity of teaching metacognition in acquiring language skills will be discussed. The methodology of this research will be described in chapter three. I will present surveys given to ESL students and teachers to identify how they utilize the strategies as well as interviews in chapter four. In chapter five, I will include some recommendations on how to teach metacognitive strategies for teachers, in addition to strategies for students to use. At the end of this paper, I will conclude by briefly summarizing my main points and touching on why they are relevant to my research.

1.4 Key words

Five terms will be introduced in this paper: metacognition: metacognitive regulation, metacognitive knowledge, metacognitive awareness, reading comprehension, vocabulary development, ESL (English as a second language) and EFL (English as a foreign language). These terms will show up throughout this paper. The definition of these terms will be discussed in the literature review.
2 LITERATURE REVIEW

2.1 Metacognition

There is no commonly agreed upon definition for metacognition. I use the definition presented by Meichenbaum (1985) who claimed that “metacognition refers to awareness of one’s own knowledge - what one does and does not know- and one’s ability to understand, control and manipulate one’s cognitive process” (As cited in TEAL Centre, 2012, p.1). With metacognitive awareness, learners know when and how to use certain strategies and what the primary purpose of using them is. It is known that there is a difference between cognition and metacognition. The difference is that cognitive approaches are the intellectual capabilities we as humans use to think, learn, and study. For example, recalling the saved information from memory, analyzing the meaning of pictures or sounds, comparing different aspects of information, and making appropriate inferences, are types of cognitive activities we use in our daily life (TEAL Centre 2012, p.1). In contrast to cognition, metacognition happens when an individual selects appropriate strategies to reach a goal or to solve a problem as well as being able to monitor his or her own thinking and assess the outcomes of these strategies.

There are two kinds of metacognition: metacognitive knowledge and metacognitive regulation (Harford Community College, Learning Center, 2014). Researchers have defined these two types of metacognition in different ways.
2.2 Metacognitive knowledge

According to Schraw and Dennison (1994) as cited in Harford Community College Learning Center (2014), metacognition knowledge can be described as students knowing about their abilities, their favorite strategies, when and how to use these strategies, and the aspects that influence their performance in their learning journey. Metacognitive knowledge includes three kinds of knowledge: declarative, procedural and conditional knowledge (p.4). Declarative knowledge is a learner’s conscious knowledge about their procedures, strengths and weaknesses. It demands that students realize how and when to apply specific strategies. Procedural knowledge is the unconscious knowledge of how to apply some procedures for the sake of learning. Conditional knowledge is about applying both declarative and procedural knowledge under certain conditions; stimulation could be one of these conditions.

However, Flavell, (1979), as cited in TEAL Centre Fact sheet no. 4 (2012), divides metacognitive knowledge into three categories: person variables, task variables, and strategies variables (p.2). Person variables are what learners know about their abilities in learning development and processing information. Task variables are what learners recognize about the difficulty of the task and the requirements to complete it. For example, when students know about the length of time they need to finish their reading assignment, this is a person variable. Strategies variables are the specific strategies learners use to accomplish a required task. An example of a strategies variable is knowing how to recall previous knowledge before starting to read an article. Behind these definitions is the assumption that metacognitive knowledge assists learners in realizing the strategies that help them to reach the assigned task in effective ways and the elements that might influence their cognitive process. It is related to what one knows about him or herself and how other people learn as cognitive thinkers.
2.3 Metacognitive regulation

Beyond metacognitive knowledge, there is also metacognitive regulation. The TEAL Centre (2012) describes how “metacognitive regulation are the adjustments that learners make to regulate their learning process” (p.1). This means that this type of metacognition helps learners to plan and fix approaches, monitor their comprehension and evaluate their learning process.

Metacognitive regulation is divided into five strategies: “planning”, “information management,” “comprehension monitoring,” “repairing strategies,” and “evaluation” (p.5). Planning strategies could be students designing resources before they start learning. Information management refers to learners’ ability to manage the conditions in which they acquire new information.

Comprehension monitoring strategies are the strategies that are used to help students to regulate the way they are learning new input. Repairing strategies are the strategies students use to correct breakdowns in comprehension. Evaluation strategies are ones that are used after learning to assess the performance or the effectiveness of the strategy (Harford Community College, Learning Center, 2014. p.1 and 5).

Similarly, Schraw (1998), as cited in Boghian (2016) says there are three types of metacognitive regulation: “planning,” “monitoring,” and “evaluating” (p.177). ”Planning” includes the strategies students use when they are aiming to reach a specific goal, usually in a positive manner. “Monitoring” is observing one’s comprehension while approaching the task. “Evaluating” is judging the outcomes of the action that was taken. This means that metacognitive regulation is the intellectual process that assists students to evaluate their usage of specific strategies and decide whether they are effective for them to use in their learning.

From these perspectives, there is consensus that “metacognitive regulation” is students’ awareness of their strategies, weaknesses, strengths, and their ability to control, evaluate, and notice their own learning, all of which will be measured in this study.
2.4 Metacognitive awareness

In addition to what researchers have stated about the two types of metacognition (metacognitive knowledge and metacognitive regulation), Flavell, (1979), Thamraksa(2005), and Boghian, (2016) added a third type of metacognition called metacognitive awareness. Metacognitive experience or awareness “refers to a person’s internal response to their own metacognitive knowledge, tasks, or strategies” (Thamraksa, 2005, p.1). Boghian (2016) defined this as “the experiences that have something to do with current cognitive endeavor” (p.54). This means that this type of metacognition combines both metacognitive and cognitive components.

In terms of metacognitive awareness, Boghian, (2016) claimed that there are three types of metacognitive awareness, which comprise: person knowledge/declarative knowledge, strategic knowledge/conditional knowledge, and task knowledge/procedural knowledge. Person knowledge/declarative knowledge is how an individual understands his or her own capabilities and recognizes what factors might affect performance as a student. It is also called “world knowledge,” as introduced by Schneider (2010, p.152). “Task knowledge”/ “procedural knowledge” is how learners deal with the difficulties of the task, its length and its content. For example, students with high levels of procedural knowledge can perform tasks successfully and vice versa (Pressley, Borkowski and Schneider, 1987, p.30 as cited in Boghian, 2016). These definitions show that the difference between declarative knowledge and procedural knowledge is that with declarative knowledge, learners can explain what they are going to do and explain how they approach specific tasks. With procedural knowledge, learners do the tasks without being fully conscious of their steps. From these perspectives, it is obvious that procedural knowledge starts as a declarative knowledge: with a new task, learners start to think and pay attention to what we are doing and how they approach it. After they practice using a specific procedure
several times, it becomes unconscious performance, thus, they use it without even thinking about it or without being fully conscious of what they are doing. Ellis (2002) supports the idea of declarative knowledge more than procedural knowledge, specifically in grammar. Ellis believes that in order to build strategic students in their second language, students need to apply intellectual efforts when trying to understand new input. Besides that, they need to pay adequate attention to the grammatical rules of their second language and be able to explain how they apply in different contexts. This applies to all aspects of grammar, specifically with the need to raise students’ consciousness to their target language features.

“Strategic knowledge”/”conditional knowledge” is learners’ knowledge of how, when, where and under what condition to use strategies that help promote learning. In this strategy, individuals need to use both declarative and procedural knowledge to have effective learning (Boghian, 2016). These definitions for metacognition show that there is a relationship between metacognitive and self-awareness as well as students’ personal experiences. Metacognition helps learners to activate their previous knowledge and use their own experiences to accomplish the upcoming task. Thus, this type of metacognition increases students’ awareness of themselves and the types of experiences they have been exposed to, allowing them to reflect and build on it. This helps students to utilize metacognition as a tool to develop both their second language skills and awareness of their acquisition growth.

2.5 Why teaching metacognition matters

To get a better understanding of materials, learners need to have both cognitive and metacognitive abilities. With the cognitive element, learners build knowledge and with the metacognitive element, learners control, evaluate and guide their learning process. Cognitive and metacognitive skills are both necessary and complement one and other. Researchers have shown
that learners who use a variety of strategies are more successful in their academic field. They think about their learning process, take time to reflect on themselves, and are capable of identifying the barriers and the challenges that prevent them from accomplishing a task. With that, they have sufficient ability to rectify learning difficulties when needed. They become more independent in their educational process (TEAL Centre, 2012). Besides that, Wenden (1998), as cited in Chang, states eight points that can be found in the learners who develop their metacognitive abilities (2014, p. 3). He described those learners as:

- skilled educators
- motivated learners
- determined learners in perusing their goals
- active thinkers, good managers of external circumstances
- more aware of their abilities and more willing to receive help from people around them
- more adaptable to any new rules

In addition, Thamraksa (2005) perceived metacognitive strategies as a crucial key for EFL learners’ success. He pointed out that the difference between weak learners and successful learners is that “weak students are not aware of their thinking process and fail to monitor their learning processes” (p.1). In contrast, successful learners are aware of a variety of strategies to prompt learning, and know when and how to apply different strategies in different situations. They know more about their goals and have control over their thoughts. Other qualities include knowing how to direct their thoughts to have a better understanding and being good observers of their performance as well as being determined to reach proficiency in their second language. In that way, they are independent in their learning process. Therefore, he states that “teachers should integrate the activities that promote both language teaching and metacognitive strategies
of planning, evaluating and monitoring” (p.1). This research suggests it is important to incorporate developing students’ metacognitive abilities in language teaching to have successful learners in their second language.

2.6 **Language learning strategies and metacognition**

According to Nikoopour, Farsani, and Nasiri (2011), Oxford (2001) defines language learning strategies into two main categories: direct and indirect. Direct methods require intellectual processing of language that leads to direct use of new language. These can be categorized into three groups, each of them have independent approaches and functions. The direct language strategies are: memory, compensation and cognitive strategies. Memory strategies help the learner to put new information into memory storage and to recall information they need to make communication. For example, using imagery, grouping, and repeating sounds are some types of these approaches (Nikoopour, Farsani and Nasiri, 2011). The compensation strategy approach usually uses guessing and gestures to fill the gap in the knowledge of the language such as using synonyms.

Cognitive ability is a conceptual process that includes memory, attention, and understanding of the target language and the ability to produce it. It is often referred to as information processing, and trying to link new information with existing schemata for analyzing. Learners need to use this kind of skill to connect the new knowledge to the existing knowledge and do high level thinking, such as analyzing and classifying. They do a mental process of forming, revising, receiving, and producing meaningful messages in the target language, such as repeating, taking notes, and getting the idea quickly (Nikoopour, Farsani and Nasiri, 2011).

Beyond the direct strategy, there are indirect language strategies, which help learners to learn a second language effectively, but indirectly. They are called indirect because of their
power in helping learners to learn without direct participation of the target language. There are also indirect methods which are categorized into three subcategories: social, affective, and metacognitive strategies. Social strategies are used to promote negotiated interaction through forming questions between students in their learning, such as asking for clarification and enhancing cultural understanding. Affective strategies are used to control students’ attitude towards learning such as using music to reduce students’ anxiety. Metacognition is a technique that is used for establishing, planning, and assessing one’s own thoughts and learning (such as self-monitoring, linking new information with prior knowledge, or looking for the opportunity to practice the language). Metacognition is more about evaluating one’s own cognition. It includes self-monitoring and directing the intellectual process to have a clear goal (Nikoopour, Farsani and Nasiri, 2011).

2.7 Metacognition and second language reading

Reading is an important skill learners in both EFL and ESL contexts need to develop. All other kinds of academic skills, including writing, listening, speaking and grammar depend on the development of reading. While some readers may develop their reading abilities and become fluent readers, we must not take for granted that all can become fluent readers. To get a complete understanding, readers need to have both cognitive and metacognitive components (Durham and Raymond, 2016). With cognitive elements, readers build knowledge, but with metacognitive elements readers learn to control, evaluate and guide their reading process. Metacognitive regulation is the adjustment that learners make to regulate their learning process. It is the action learners take to plan and rectify approaches, monitor internal comprehension, and evaluate their learning process (Durham and Raymond, 2016). Students without metacognitive reading strategies may struggle to fully comprehend new academic passages that include unfamiliar
words. One of the ways to help students overcome this comprehension challenge and become independent readers is by developing their metacognitive skills. Chamot and O’Malley (1990 and 1996) clarified that English language learners face a significant challenge, specifically when dealing with content and academic language at the same time. Thus, simulating and teaching some learning techniques will reduce the challenges for more effective learning.

Teaching reading has been widely investigated by many scholars around the world. Most researchers define teaching reading based on their experiences and they have proposed a variety of methodologies to develop students’ reading comprehension. Ro and Cheng-Ling (2014) are one pair of researchers who investigate the relationship between reading and students’ attitudes. They found out that there is an obvious correlation between students’ perceptions and the frequency of reading. The findings suggest that students who have positive attitudes towards reading and their second language culture are more likely to read more in English. However, few researchers look at the students’ self-awareness in their second language. Desautel (2009) explores the importance of self-awareness in students’ language acquisition. He discovered that oral and written self-reflection and defining personal and academic goals are the two important factors in developing students’ self-awareness as well as their metacognitive skills. When students are able to articulate, and explain the steps they make in their minds when performing a task, it helps to make their own learning visible for themselves and other.

Channa, Nordin, Siming, Chandio and Koondher (2015) reviewed previous studies that focus on finding the relationship between reading achievement and metacognitive strategies. They found that there are three metacognitive approaches students need to promote in reading: “planning as metacognitive strategy,” “monitoring as metacognitive strategy” and “evaluating as a metacognitive strategy.” In the planning stage, learners need to plan how to comprehend and
learn new input using different strategies. In the monitoring stage students, while reading, learners need to display what they comprehend and what they do not by noticing their cognitive thinking. There are three components for the “monitoring stage” which are: “thinking-aloud”, “self-questioning” and “self-regulation” (p.182). According to Block (1986) the think-aloud strategy is the approach that helps readers fix the problems and challenges that they might face in reading. This strategy encourages readers to notice all the text features and look at the text discourse to have a better understanding of the text meaning. Think-aloud strategy was developed by Newell and Simon (1972) to evaluate comprehension of students. They define it as a scaffolding strategy that helps the readers to connect their cognitive thinking in reading by verbalizing their thoughts through the process of reading. With the self-questioning approach, students question and evaluate their knowledge to avoid misunderstanding that might happen during reading. This strategy uses cognitive processes to promote metacognitive knowledge. This method helps readers to learn “the accuracy of monitoring by controlling the learning and comprehension of the readers” (Rawson, O’Neil and Dunlosky, 2011 as it cited in Channa et al, 2015, p183). With self-regulation, students control the ways they process new knowledge by seeking for enhanced comprehension. In the evaluating stage, students usually evaluate their comprehension after reading. Writing a summary plays an essential role in providing students with a clear image of whether they understand the main ideas of the text well. This research provides the types of approaches that teachers need to teach students explicitly to increase their reading comprehension. These approaches will be addressed in this study to see to what extent ESL students are aware of these techniques.

Shehu (2015) explores different elements that interfere in comprehending a reading passage such as unknown vocabulary, complex grammar and the lack of background knowledge.
He found that non-native speakers encounter difficulties comprehending the input presented in the reading. However, this study did not shed light on what kind of metacognitive strategies in reading teachers should teach in reading classes to help students overcome these challenges inside and outside the classroom. Measuring different metacognitive strategies might lead us to explore which type of metacognitive strategies help students achieve better reading comprehension. For example, Othman, Mahamud and Jaidi, (2014), measured learners’ performance and comprehension in reading expository textbooks using metacognitive strategies. This study took place in University of Kebangsaan, Malaysia. The researchers divided the students into experimental and control groups. They wanted to see if there was a difference in the post-test scores between the group with metacognitive instruction, which they call “strategic reading” and the group with the conventional instruction in terms of reading comprehension. The results illustrate that students who used metacognitive strategies in their reading outperformed the students who used the conventional methods in reading. These results suggest that when students implement some metacognitive strategies, such as guessing the meaning of unknown words, forming questions about the author, underlining the difficulties in the texts, looking for the hidden meaning of the text, connecting the unknown to the known, and reflecting on the text, they interact effectively with the text and overcome reading difficulties. This motivates students towards reading and developing their problem-solving strategies in their second language.

2.8 Metacognition and reading comprehension and vocabulary development

Martinez (2008) analyzed metacognitive reading strategies that are used by ESP (English for Specific Purpose) university students. This researcher believes that the awareness of the usage of strategies and monitoring the comprehension process are two important elements needed to be a skilled reader. He sent a survey to 157 non-native English speakers in the
University of Oviedo. Students were assessed on their metacognitive awareness of reading strategies by using the “Metacognitive Awareness of Reading Strategies Inventory.” This inventory measures three kinds of reading metacognition (Mokhtari and Reichard, 2002, p.172). These kinds are:

- **Global-Reading Strategies (GLOB)**, which help readers to get the preliminary content by previewing the text to get some ideas and define the purpose of reading.

- **Problem-Solving Strategies, (PROB)**, focuses on monitoring the comprehension and using the strategies to have a better understanding of the text meaning. This can be achieved through checking ones’ comprehension when the text is difficult or there are unclear ideas, and re-reading to increase comprehension.

- **Support-Reading Strategies, (SUP)**, include tools to keep the reader engaged with the text. For example, using the dictionary to define unfamiliar words or reflecting on understanding.

The results of Martinez’s survey show the popularity of problem-solving, and global-reading strategies. Besides that, it was also found that women stated higher preferences for support-reading strategies than men do. This shows that problem-solving and global strategies were the preferred strategies among students, with women also utilizing the support reading strategies. This adds to my study to find out if there is gender preference in the usage of metacognition and what causes this preference. It is also possible that this preference differs among different nationalities. Overall, these results demonstrate that the students use some metacognitive strategies in their language skills, specifically with reading, and that students can recognize and identify the types of strategies they typically use.
In contrast, Kim and Cha (2015) stated that sending a survey to assess students’ self-awareness of their reading strategies does not show how students regulate their reading in an authentic way. Instead, they introduced a group of Korean students to explicit reading strategies. The primary goal was to explore changes that might happen in the students’ regulation process and “the frequency of regularity” during the reading (p. 180). To track the changes in the students’ regulation of cognition, students were encouraged to use “a think-aloud technique,” introduced by McKeown and Gentilucci (2007), for 15 weeks. This study had students meet once a week, “starting by a reading lesson and followed by explicit reading strategy training” (p. 181). In the first week, students were trained to use think-aloud methods and model how they approached reading. For the rest of the week, students were observed while they were reading and thinking aloud. The results of the study show that students made some changes in their process of regulation, especially at the word level. This means that the thinking aloud strategy can be an instrument for data collection as well as a new method to help engage students with the text, increase their comprehension, and enhance their vocabulary.

Besides think-aloud instrument, there is another measurement instrument that researchers use to track students’ metacognitive process while reading called eye tracking. This approach was introduced by Rayner (1998). Eye movements show the length of eyes remaining on a word, which reflects the difficulty, the frequency and familiarity of that word. Hegarty (1992) and Rayner, Rotello, Stewart, Keir, and Duffy (2001) investigated the types of movements students’ eyes usually take when reading. They found out that students looked at the visual aids such as diagrams, pictures, or graphs only after reading the captions. Schotter and Rayner (2012) claimed that there two characteristics of eye movements: saccades and fixation. Saccades is the movements of the eyes. Fixation is the length of the time in which the eyes stays
stable. These studies show that eye-tracking could be a useful instrument to track students’ eye movements in reading, to see what kind of intellectual process they are using in their minds.

In terms of developing vocabulary, Cubukcu (2008) defined metacognitive approaches as strategies that encourage students to think about their own comprehension while reading an academic passage. The researcher examined the impact of metacognitive strategies on promoting students’ vocabulary. Students were exposed to metacognitive strategies for five weeks. This study also aimed to see whether instructing metacognitive awareness helps students to comprehend the received texts. One hundred thirty students (15 males and 115 females) volunteered to be in this study. Sixty-five students were trained to control their thinking while reading by using specific strategies while the other 65 students were not. Students then received two tests, a vocabulary test and a reading comprehension test. Both groups received pre-and post-tests to signify the differences and the changes in students’ performance. The Cognitive Academic Language Learning Approach (CALLA) was incorporated in the experimental group which contained five stages: introducing, teaching, practicing, evaluating and applying new techniques (p.6). This approach was introduced by Chamot and O’Malley (1996). Through this approach, teachers can encourage students to activate their mental process and reflect on their own thinking as well as their own learning. Chamot and O’Malley confirmed that the CALLA model contains three components: high-priority content topics, academic language development based on the content, and explicit instruction in learning strategies (p.263). This teaching method provides the teachers with valuable and practical ways in which they can incorporate content-area instruction with explicit learning strategies. Chamot and O’Malley explain that by focusing on the important academic subjects, teachers helps students in acquiring the new academic vocabulary they need to achieve success in all types of subjects. A second reason for emphasis
on teaching strategies based on content is to build strategic students that will be able to not only explain the content they learn, but also how to approach it. In Cubukcu’s study (2008), there were a variety of strategies provided. These include: using personal concentration, inferring the text’s meaning, activating the background knowledge, evaluating whether the text has contributed to increase their knowledge, researching according to their goals, deciding the difficulties, and guessing the coming themes (p. 6).

The results of the study demonstrated that students who applied these strategies in reading get higher scores in both reading and vocabulary tests. This shows educators the importance of training students to use metacognitive strategies as a fundamental factor to facilitate students’ vocabulary and enhance their comprehension abilities in reading. It is not enough to just teach students these strategies. Teachers need to spend time modeling them and training students how to use these strategies in their reading effectively, although practice time might differ based on students’ motivation and their language proficiency.

Researchers not only looked at the effectiveness of metacognitive reading strategies in their adult context, they also examined it from the context of children. For example, Cer and Sahin, (2016) explored “the effect of metacognitive strategy in enhancing reading comprehension skills through children’s literature of literary quality in the Turkish context.” They did a quasi-experiment, which contained 65 students. 30 students were in the control group and 35 students were in the experimental group. In the experimental groups, students received metacognitive instruction in reading. Before reading, teachers asked students to explain what the text aims to tell us and what types of strategies they need to promote to have a better understanding for the coming text. During reading, students were taught to monitor their comprehension while reading by asking some questions such as “does the task mean anything to
“me?” and “do I really grasp what I am reading?” (p.113). After reading, students were required to answer questions; some of them were “what procedures did you follow for completing this task?” “what problem did you have during the process?” and “did you achieve your goal?”

In the control group, students were required only to answer the questions that came within the text, they were not introduced to metacognitive questions. According to the post-test results, there was a significant difference in the results between groups in their reading comprehension. The authors concluded that metacognitive strategies helped to enhance not just students’ reading comprehension, it also enhanced students’ reading abilities. This shows us that focusing on teaching the content of reading and having students answer questions is not sufficient. Teachers need to enhance both students’ reading strategies and their text understanding by teaching reading metacognitive strategies explicitly, to have better comprehension of the reading passages and build strategic readers.

2.9 Tagging as a Metacognitive Tool in Reading

Durham and Raymond (2016) examined whether introducing a variety of tagging as a metacognitive tool enhances students’ cognitive reading fluency and their motivation for reading. Tagging is a useful approach that inspires students to express and tag their feelings, enjoyments, wonder, opinions as well as their anticipation and connection with the text. They introduced “a set of tags” to 21 students for six weeks. In the pre-test, they assessed reading attitudes, students’ motivation and types of responses to the reading by using the Elementary Reading Attitude Survey (McKenna & Kear, 1990). They then followed with full instructions of the tagging metacognitive strategy. They believe that “good readers develop the same ability to identify and ‘tag’ known critical literacy connections made with the text. When teachers purposely build a reading community which fosters developing metacognitive ‘tagging’ skills, they help readers
strengthen their critical thinking skills by drawing on connections while reading” (Durham and Raymond, 2016, p. 46). The researchers modeled how to use the tagging strategy for different purposes, (for “enjoyment and imagery”, “wonders and curiosities” and “realizations”).

The first week, students practiced using this “tagging.” They were required to use this strategy and integrate it in their journal and bring their journals to class to discuss within their group, which contained of four people. The second week was to assess their abilities using this metacognitive strategy. The results of this study show that tagging helped to improve students’ comprehension and motivation and encouraged students to share their thoughts. They conclude that tagging helps students to frame metacognitive maps. This map will be constructed in students’ minds as they are reflecting on the reading and showing how the content of the text is touching their emotions and enjoyment. This helps students to remember both the content and the language through tagging the information of the text in their minds and building critical dialogue with the text. Students with metacognitive tagging strategies are able to identify what questions they have about the text and what visualization they made. Furthermore, “this enhances not only their motivation to read, but their comprehension skills as a reader.” This means the more students tagged, the more they showed their responses and feelings toward the writer’s ideas and presented their identity and opinions as a reader. From this perspective, I recognize the importance of interaction in reading by promoting tagging as a beneficial method to develop both students’ cognitive and metacognitive knowledge.

2.10 Variables that might impact the deployment of metacognitive strategies

To see the variables that might impact the procedure of metacognitive strategies, Khezrlou (2012) investigated the usage of cognitive and metacognitive approaches among 90 adult learners and 60 young learners with different backgrounds of education. The findings show
that “the preferences for cognitive and metacognitive differ across levels of education” (p. 50). In terms of finding the association between the age and the usage of cognitive and metacognitive strategies, they found that most of the learners use both cognitive and metacognitive strategies in their TOEFL test. In terms of finding the difference between students’ level of education and the usage of cognitive and metacognitive, the results suggest that university students use different metacognitive strategies from those students who are juniors and seniors in high school. University students also gave a higher preference for the usage of cognitive strategies than those who are in high school. In terms of the entire field of the study, the results showed that there is no correspondence between students’ majors and the choice of cognitive and metacognitive strategies.

Other researchers, (Chevalier, Parrila, Ritchie and Deacon, 2015) examine whether there are differences between the usage of metacognitive strategies, learning and behavioral strategies and academic achievement among 474 college students with “a history of reading difficulties” (HRD) and “students without reading difficulties (NRD) (p.1). The findings show that metacognitive strategies can be a predictor for the academic achievement with HRD while behavioral and learning strategies can be a predictor for their academic success with NRD. They concluded that there is a need for more research about which strategies are more effective, for whom, at what level, and under what conditions the impact is more effective or least effective or limited. The results of this study demonstrate that students with HRD are trying to compensate for their comprehension difficulties by using more metacognitive strategies in reading. This study explains that the effective strategies are associated with their academic success with or without HRD. This adds to this research of metacognitive awareness, showing it has been useful for college students who are studying academic textbooks in their second language and are
approaching academic success by promoting these strategies in their learning process. Therefore, it is obvious that there are some students who found metacognition as the best solution to overcome the difficulties of their learning.

2.11 Metacognition in the EFL (English as a Foreign Language) context

In the EFL (English as a Foreign Language) context, Yousefvand and Lotfi, (2011) examined the impact of “strategy-based reading” on EFL students’ comprehension in reading in graduate programs. Their study aimed to identify the changes that might happen in students’ attitudes towards reading and their understanding. This study was done with 40 graduate students studying in an Intensive English Program. Those students received strategy-based reading instruction for a semester. All students received pre-and post-tests to see whether they made any progress in terms of reading comprehension. The results show that there is progress in the students’ reading abilities. Most of the students learned better ways to understand the text by using and practicing the strategies that they learned in this study. In terms of changing their habits, researchers emphasized that before being exposed to the study, most of the participants claimed that they looked at every single word in the text. This decreases their reading accuracy and caused them to waste their time. After teaching the strategies, the researchers noticed that students do not realize the difference between good and bad reading habits. They claim that the only reason behind that was that students needed time to get used to these strategies and start to promote them in reading. In terms of students’ beliefs and attitudes toward reading, students recorded a positive feeling towards the teaching strategies and their effectiveness in developing their reading abilities.

This shows us that even if the students are taught and trained to use useful strategies to help them with their reading, they still need time to adopt them in their reading. Teachers should
teach students when, why, and how they benefit from using these strategies in their learning. The lack of vocabulary knowledge and being unaware of the benefits of the effective strategies in reading is the reason students stop developing their reading skills. This helps me to recognize the importance of increasing students’ awareness in learning as well as explicitly teaching them.

Qanwal and Karim (2014) investigated there is a correlation between reading strategies and competence in reading understanding. Their study took place in Pakistan among high level learners. The study had qualitative and quantitative data; students received questionnaires that covered all types of components of reading as qualitative data and reading comprehension tests as quantitative data. The results show that there is a relationship between reading techniques and students’ competency in reading. In terms of identifying the association among distinctive variables, the researchers claimed that there is an association between the pre-and post-reading, pre-reading and while reading, and while reading and post-reading. Most of the students got high grades on their reading test and this shows us the connection between reading instruction and the proficiency in learning. This tells us that preparing and activating students’ knowledge by setting active strategies in the pre-reading stage helps to enhance students’ capabilities in the other aspects, such as while and post reading. Students should receive explicit and direct instruction to develop their reading abilities.

From this study, I recognize as a teacher the need of developing my students’ reading abilities in their foreign language by teaching and training them to use the appropriate strategies at the appropriate times. It is not necessary to teach students all types of strategies; students should recognize the most effective strategies for them and promote them based on the types of the text they are reading.
3 METHODOLOGY

3.1 Participants

This study investigates whether ESL students are aware of some metacognitive strategies in reading and if so, what these strategies are, and their impact on students’ reading comprehension. Participants were ESL students and teachers: students who have taken an ESL program in the U.S. and teachers majoring in teaching English as a Second Language. A survey was taken by 68 students, 50 of whom are Saudi students. The survey was sent to ESL students to find the common types of reading strategies that ESL students usually use, with or without their teachers’ help, in addition to their reading difficulties. It also aims to see whether ESL students are aware of the need for metacognition in second language acquisition. Another survey was taken by 70 ESL teachers. The teachers’ survey asked ESL teachers whether they integrate teaching metacognitive strategies in reading and their perceptions of some reading strategies, as well as how often they taught their ESL students metacognitive reading strategies.

3.2 Theoretical base

This research is a mix of both qualitative and quantitative approaches. A survey was sent to ESL students measuring different types of metacognitive reading strategies. The aim was to see what metacognitive reading strategies ESL students report that they consistently use. For quantitative analysis, descriptive statistics were used to show the average usage of each type of metacognitive strategy as well as to compare the most used strategies and the least used strategies. Also, this study investigated what prevents students from promoting these strategies.
despite their benefits. Another survey was sent to teachers with the goal of identifying how often ESL teachers teach these metacognitive strategies in their reading class, their perceptions of some reading strategies and the need for them in second language acquisition. I also wanted to find out how often they encourage their ESL students to use metacognitive reading strategies.

This study is also qualitative, using interviews as supplementary data. The data was collected through interviewing both teachers and students. The purpose of these interviews was to triangulate the findings of the surveys on the usage of metacognitive strategies in reading and how students promote them.

3.3 Data collection

This study investigates whether ESL students are aware of their metacognitive reading strategies, what strategies were used the most, and whether these strategies were effective or not. The data was collected by sending surveys through SurveyMonkey, by recording the interviewees, and taking pictures of students’ notes while reading books. The data collection consisted of two surveys, one of them containing questionnaires based on Metacognitive Awareness of Reading Strategies Inventory (Mokhtari and Reichard, 2002), and the other investigating teachers’ perceptions of these strategies. At first, the surveys were sent online to both teachers and students through SurveyMonkey. Later, the survey was printed out and distributed to get more responses. Then, the data from the hard copies were entered manually into SurveyMonkey.

Kim and Cha (2015) said that survey is not effective to track the changes that happen in students’ regulation knowledge, but the reason I chose to send a survey was to see whether students are already aware of some reading strategies; my goal was not to find out the
effectiveness of using some metacognitive reading strategies on students’ reading comprehension rather than to find out whether students are aware of their thinking while reading and the strategies they usually use to overcome their reading difficulty.

In addition, I took notes my classrooms’ observations and interviewees’ responses. The purpose of taking notes at that time was to not interrupt the interlocutors and give them sufficient time to explain their points without disturbing their thoughts (Burns, 2010, p.46). The benefit of doing it this way was that all the interviewees, whether they were students or teachers, felt encouraged when they got enough time to think and say whatever came to their mind. In this study, I used some index cards when I interviewed my participants and colored papers when I observed some ESL classroom at different institutions. I also recorded my interviewees’ responses and took pictures of students’ reading books with the purpose of reflecting back on them to identify what kinds of information they underlined and how they annotated the readings.

### 3.3.1 Survey for students

The survey sent to ESL students asked about metacognition strategies in reading. The aim of this survey was to see whether ESL students were aware of their metacognitive reading strategies (see Appendix C). This survey had both “closed-ended items” that required limited answers and open-ended questions that invited students to explain their perspectives and experiences. According to Burns (2010), these types of question should be analyzed by calculating the total scores. The way open-ended questions should be analyzed is by finding the patterns among the responses and categorizing them into themes. Therefore, I looked for patterns, and themes among participants’ responses and found the common themes that were mentioned by most of the students.
3.3.2 Survey for teachers

A second survey was sent to ESL teachers. At the beginning of the survey, I included some background questions asking teachers about the length of their teaching career, the subject they usually teach and whether they are teaching English as a ESL or EFL (see Appendix D). These are similar to the factual questions that Burns (2010) defines as the information that demonstrates who our participants are and what their background and educational experiences are. Likewise, some attitudinal and behavioral questions were asked in the survey about their attitudes towards teaching metacognitive reading strategies. Attitudinal questions demonstrate participants’ beliefs, views and opinions about using specific methodologies.

Some questions are open-ended, and invite the participants to make comments and express their own definitions of some terms, such as how they define a good reader. Other questions were Likert scale style, where ESL teachers were asked to check or mark the number that best represents their view and experiences teaching reading strategies (Burns, 2010).

3.3.3 Interviews

There was a total of 6 interviews: three interviews with students and three interviews with teachers. The primary goal throughout the three interviews was to triangulate the results of the surveys as well as to see ESL students’ attitudes towards metacognition instruction and to learn how to promote metacognition in reading based on their experiences. In addition, I wanted to see if there was a mismatch between what students stated in the survey and what they use in their reading by interviewing them and observing them reading inside the classroom. The interview questions are similar to the surveys questions. However, there are some questions from the survey that were expanded in the interview. This interview helped me to triangulate the findings of my survey.
Besides students’ answers, I wanted to see if students are metacognitively aware of their reading strategies. I tried to find out what strategies ESL students usually use and how they impact their reading proficiency. In addition, I wanted to investigate teachers’ perceptions of teaching metacognitive strategies in reading class among ESL class and how they are reflected in the way they have been teaching reading.

My participants’ interviews took about one hour. I started my interview by asking a broad question, “what do you do when you have reading difficulty?” The purpose of starting my interview with this overall question was to provide the framework for my interview. Then, I let my interviewees’ answers guide me to the next question. One of the best ways to have a useful interview is by keeping it open ended, like a conversation (Richards, 2003). Paraphrasing what my participant says and asking them to explain the ideas that were not clear is the best way to keep the conversation going. After the interview, I looked for the patterns, tagged them with numbers and labeled them into different categories.

3.3.4 Classroom observations

I also did a serious of six observations of the ESL program. The observations took place at different places, Gonzaga University, (an Intensive English Program for Mukogawa Fort Wright Institute, and the Extended Learning Institute at Spokane Valley. There were two observations for each level: two observations for the beginner level, two observations for intermediate level, and two observations for high level classes. I took notes while I was observing and had a checklist for the strategies that I would see during my observations, assuming that only some strategies are visible. The goal of doing this was to compare different reading instructions to see if there are some differences or similarities between the strategies different teachers teach for different levels of teaching.
According Burns (2010) “collecting data through observation is to do with making familiar things strange” (p.57). Therefore, during my observations, I tried to see everything that was happening in the classroom as new things for me. I took descriptive observations that cover every action that was taking in the classroom. This is because I wanted to be able to observe and notice different types of actions, such as how teachers set up the reading class and how they start their readings and their reactions to questions that come within the readings. The main goal of doing observations was to see the types of reading strategies ESL teachers teach and the types ESL students use the most. Thus, I kept reminding myself of my research questions and stayed focused as I was observing.

3.3.5 Journals and students’ reading books

An additional data collection method was to collect students’ journals with their responses to their readings. The purpose was to see how students responded to their readings, how they reflected on what they read and whether they connected what they read with what they already knew. I also looked at whether they can summarize and critically analyze what they read, showing their own opinions about the topics, and if they are metacognitively aware of what they read. In addition, pictures were taken of students’ books to see how they marked and annotated the readings.

With students’ journals, I looked for patterns and I decoded their answers by using different colors for different themes. I reflected on them and found the sub-categories that stood out and wrote them on a piece of paper. After that, I subdivided them according to the larger themes that might come under them. I highlighted the outliers with a different color and later I went back and see if they would fit under one of the themes that already developed. Otherwise, I
presented them as outliers.

3.4 Data analysis

Interviews conducted with both the students and teachers were transcribed and then the responses were analyzed. When I listened to the interviews for the first time, I noted the important points that seemed related to my research topic. Then, these main points were transcribed and coded to find themes. I read the interviews three times and reflected on what the participants said. I did not impose my own themes because I wanted the themes to come from my participants’ answers. According to Burns (2010), there are two kinds of data analysis: inductive and deductive. Deductive analysis is when you come up with your own categories and try to justify them. An inductive analysis is when the researcher lets the data decide what categories should be included in the findings. This study has both inductive (grounded) and deductive (a priori) analysis.

While doing the analysis, I captured and highlighted the most important information using different colors. According to Baptiste (2001), “to define the analysis, researchers need to decide what the goal of the analysis is and what counts as appropriate information” (p. 54). For the quantitative analysis, after the participants took my surveys through SurveyMonkey, the data were downloaded into Excel to make charts and present data in a more visual way. Statistical analysis was used in this study to find the correlation among the strategies and students’ proficiency levels, and their gender as well as standard variances among these strategies. This research is thus exploratory research intended to investigate students’ awareness of using some reading strategies.

After doing the interview, I analyzed the discourse of students’ utterances because there
were some viewpoints that I did not understand. I tried to understand the context of some utterances and understand what students meant by some words. This helped me to recognize that doing an interview is a useful way to get the emic perspective of the people who experienced the situation. For example, students are the participants of this study and as a teacher I want to know if they are aware of some of their reading strategies. Thus, interviewing and asking both students and teachers helped me to understand their own perspectives and abilities. The categories came from my interpretation of students’ and teachers’ utterances from the surveys and interviews. In addition, I looked at the journals and my notes to find the commonalities with the survey and interviews.

3.5 Triangulation

Burns (2010) is one of many researchers who talks about the advantages of triangulation. According to Burns (2010) “triangulation can help to explain things that seem to contradict or not support each other” (p. 97). I triangulated my research by having different types of data and looking at it from different perspectives (teachers’ perspectives and students’ perspectives). I triangulated the results of the survey after interviewing both teachers and students and observing some teachers giving instruction and students while reading.

Then, I defined my categories that I measured and the new categories that I found out from the surveys and compared them with what was found from the interviews. I took the surveys’ results and compared them with the categories that emerged from the interviews. When I compared both teachers’ and students’ surveys and interviews with classroom observations and students’ journals, I found some shared themes among them, though there were also some different themes. I then looked to find the similar themes that both teachers and students mentioned and classified them as my primary categories for this study. After that, I decided
which categories would be worth reporting in this paper and I classified them into larger themes based on the results of the data (surveys, interviews, and students’ journals).

In addition, after I finished analyzing the surveys, interviews and classroom observations, I compared my findings with other researchers’ findings to have a valid and reliable study. I compared what other researchers who studied the same topic have found to my findings to enhance the validity of this study.

3.6 Ethics

Through conducting this research study, I took ethical considerations into account. I gave my participants the choice whether to be in my study or not, as well as the right to withdraw. I provided the interviewees with the consent forms, seeking their permissions to use their responses in my study. Before I started conducting this study, I applied for Institutional Review Board (IRB) to the IRB committee at Gonzaga University to protect the rights of the participants of my research study. I conducted the interviews in the places and times my interviewees chose to make them feel more comfortable. The survey, which was sent online, also included a consent form that gave some important information about the survey’s type of questions. For example, the length of time it was expected to take to complete the survey, the anonymity of the participants, and their right to quit responding to the survey whenever they decided to quit.
This study investigated the types of metacognitive reading strategies they adopt to overcome these challenges when reading an academic passage, as well as the types of readings ESL students like to read and their reading difficulties.

4.1 The types of the reading text ESL students found to be easy

In this section, I asked ESL students about the types of reading they enjoy. I gave them different choices to see what their favorite type of reading is. Short stories come in at first position, where 61% of students stated that they prefer to read short stories rather than other types of reading (see figure 1). This result supports the findings of Ghazali, Setia, Muthusamy and Jusoff (2009). Those authors investigated ESL students’ attitudes towards texts used in literature classes and found out that 80% of students find reading short stories pleasant for them to read due to it consuming less time. Internet texts come at the second position where 35% of students informed that they enjoyed reading the online texts. Interestingly, 27% of students preferred to read research articles, which was surprising. One possible explanation is that
students do not struggle with research papers that are relevant to their majors.

**Figure 1: Student preferences in reading**

However, there was a choice where students can write their favorite type of reading when none of the choices that were provided meet their desire. This choice is called other, as you can see on the chart above; 22% of students picked other and wrote the types that were not provided. After looking at this section, I found out that most students showed novels as their favorite types.
This shows us that novels are one of the types of reading that ESL students enjoy. This result contrast what was found in Ghazali, Setia, Muthusamy and Jusoff (2009) when they found out that 61.8% of students did not find novels pleasant for them to read.

4.2 The types of the reading text ESL students found to be difficult

Another section asked open-ended questions about the type of reading students find to be difficult. Students stated that the most challenging reading for them are academic articles and scientific articles, as well as poetry. In addition, there were some students who stated that long stories and fictional stories are also difficult to read. Within this question, students had to give their own reasons why they think that these types are difficult for them. The common reason students gave was that these types of reading contain a lot of new academic vocabulary. For example, when I asked students about the reasons that they found these types of reading are difficult for them, a student said, “because there are some academic words that they use in the text about their item and not familiar with them.” Another student said, “the language usage + vocabulary are more complex.” A third student said, “they use bigger words than what I am use to read and know.” These sayings illustrate to us that ESL students struggle the most with understanding the new academic vocabulary that are contained in most of the academic article.

Question 14 of the survey asked respondents to show their reading difficulties by selecting from a list. Students stated that the type of the text that contains new words are the most challenging factor for them. From this perspective, we can see that even though students stated that they guess the meaning from the context, still they have not approached this strategy in an effective way and this causes them to struggle reading academic articles. The second reason that students stated was that sometimes the types of reading are not familiar for them.
Students stated that the complexity of a text and unfamiliar words are the two factors that cause most of their reading difficulty. 34% of students stated that the type of text that contains unfamiliar words causes comprehension break downs. 23% of students stated that the lack of background knowledge is the obstacle of enhancing their reading while 11% stated that they are simply not interested in reading. In addition, 19% of students claimed that they found it hard to concentrate while reading (see figure 2). From these results, I might surmise the issue is not that students are not motivated to read in their second language, but rather they might not be aware of the additional useful strategies that they can use in reading to assist them.
4.3 Students’ mean frequencies of using all strategies and each category of strategies

This study also examined the three types of reading metacognitive strategies that are adopted by ESL students in the U.S when reading an academic passage. The three strategies that were measured in this questionnaire were “global-reading strategy,” “support-reading strategy,” and “problem-solving strategy.” Each type of strategy has sub-categories and students were provided with a list of strategies and asked to show the frequency of using them on a five-point scale. There were 54 responses for each sub-strategy (see Table 1).

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall reading strategies</td>
<td>M = 3.46</td>
</tr>
<tr>
<td>Global-Reading Strategies</td>
<td>M = 3.58</td>
</tr>
<tr>
<td>Problem-Solving Strategies</td>
<td>M = 3.67</td>
</tr>
<tr>
<td>Support reading strategies</td>
<td>M = 3.31</td>
</tr>
</tbody>
</table>

Table 1

Although the mean frequency of overall strategy use was high, the participants tended to use problem-solving strategies at high frequency and support reading strategies at low frequency. Likewise, they reported using problem-solving strategies most frequently, followed by global-reading strategies and support-reading strategies. While most of the problem-solving strategies and global reading strategies were rated at ‘high’ usage, support strategies reported as ‘medium’ use.
4.4 The strategies ESL students used the most

The first popular strategy used by ESL learners is the support reading strategy, which is “identifying the important information and circling it to remember in the future” (mean= 4.15). 48.08% of students stated that they always underline and circle the information that seems to give a strong meaning of the text. This shows us that their primary goal of using this metacognitive strategy is to retain the information of the reading in their memory. This might come from its benefit of helping students to mark what they read, so they can go back to it whenever necessary. It appears that most of the students are aware of using this strategy in their reading.

The second strategy is the problem-solving strategy, “re-reading the text when facing some difficulty understanding the text” (mean= 4.09). 39.62% of students stated that they always re-read the text to have better comprehension. From this number, it is possible to say that 39.62% of students are aware of the importance of re-reading the text when they face conflicting information.

The third strategy is another type of problem solving strategy, “guessing the meaning of new words or phrases without using the dictionary” (mean=3.85). 57% of students stated that they guess the meaning of unknown words when they are reading.

The fourth strategy, is “paying closer attention to the reading when the texts become difficult“ (mean= 3.85). 57% of students claimed that they always pay attention to what they are reading, avoiding reading difficulty. Most of the strategies that students promote are the ones that help them to increase their understanding and recall the input of the reading (see table 2).
From these results, we can say that ESL students are conscious of their understanding procedures and can regulate and realize when their comprehension breaks down.

### 4.5 The strategies ESL students used the least

Support-reading strategies 18 “when the text becomes difficult, I read aloud to help me understand what I read” (mean= 3.12), problem solving strategy 27 “I think aloud while I am reading” (mean 2.87), global reading strategy 11 “I check and evaluate the difficulty of the text.” (mean=2.81), and support-reading strategy 29 “I draw a semantic map after I finish reading the text to help me understand what I read.” (mean 2.29) are the least used strategies (see table 2). From these results, we can say that “drawing a semantic map after finishing reading the text to understand what the reading,” “thinking and reading out aloud,” and “checking the difficulty of the text before reading it” are not common strategies among the ESL students even though there are some researchers who highlight the importance of using these strategies in second language reading.

These results illustrate that even though ESL students seemed to be aware of strategies that help them with their reading, they still avoid using some effective strategies, especially ones that require them to do some intellectual processing while reading.

<table>
<thead>
<tr>
<th>Answer Options</th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
<th>Rating Average</th>
<th>Response Count</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The Most used strategies</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23- “I underline or circle information in the text to help me remember it.”</td>
<td>1</td>
<td>3</td>
<td>8</td>
<td>15</td>
<td>25</td>
<td>4.15</td>
<td>52</td>
</tr>
</tbody>
</table>
Table 2: The most and least used strategies

<table>
<thead>
<tr>
<th></th>
<th>When the text becomes difficult, I re-read to increase my understanding.</th>
<th>0</th>
<th>4</th>
<th>8</th>
<th>20</th>
<th>21</th>
<th>4.09</th>
<th>53</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>“I try to guess the meaning of unknown words or phrases.”</td>
<td>1</td>
<td>2</td>
<td>19</td>
<td>13</td>
<td>18</td>
<td>3.85</td>
<td>53</td>
</tr>
<tr>
<td>20</td>
<td>“When the text becomes difficult, I pay closer attention to what I am reading.”</td>
<td>1</td>
<td>3</td>
<td>11</td>
<td>26</td>
<td>12</td>
<td>3.85</td>
<td>53</td>
</tr>
</tbody>
</table>

**The least used strategies**

<table>
<thead>
<tr>
<th></th>
<th>When the text becomes difficult, I read aloud to help me understand what I read.</th>
<th>9</th>
<th>7</th>
<th>17</th>
<th>7</th>
<th>12</th>
<th>3.12</th>
<th>52</th>
</tr>
</thead>
<tbody>
<tr>
<td>18</td>
<td>“I think aloud while I am reading.”</td>
<td>11</td>
<td>6</td>
<td>20</td>
<td>11</td>
<td>5</td>
<td>2.87</td>
<td>53</td>
</tr>
<tr>
<td>27</td>
<td>“I check and evaluate the difficulty of the text.”</td>
<td>9</td>
<td>11</td>
<td>19</td>
<td>9</td>
<td>5</td>
<td>2.81</td>
<td>53</td>
</tr>
<tr>
<td>11</td>
<td>“I draw a semantic map after I finish reading the text to help me understand what I read.”</td>
<td>18</td>
<td>15</td>
<td>7</td>
<td>10</td>
<td>2</td>
<td>2.29</td>
<td>52</td>
</tr>
</tbody>
</table>

4.6 **The most and least used strategies in terms of the three main types of the metacognitive strategies in reading**

Taking a closer look at each sub-strategy individually will demonstrate to us the most and least used strategies in terms of the three main types of the metacognitive strategies in reading: global-reading strategy, problem-reading strategy, and support-reading strategy.
4.6.1 Global-Reading Strategies (GLOB)

Global-Reading Strategies (GLOB), are the strategies that help readers to set the initial stages of reading, such as:

- Previewing the text to get some ideas of its content, defining the purpose of reading
- Activating the prior knowledge, guessing the material before starting reading it
- Deciding the important information

12 global-reading strategies were investigated in this study (see Table 3). Based on the questionnaires, the global strategies that are most used by ESL readers are checking their understanding when they come across conflicting information (mean=3.79 out of five) and activating their previous knowledge to help them understand what they read (mean=3.72 out of five). The least used strategy of the global reading approach is checking the difficulty of the text before starting reading (mean=2.81 out of five). This strategy can be done during the pre-reading activity where students should predict and figure out what type of input they will be reading and how difficult or easy it is.

<table>
<thead>
<tr>
<th>Answer Options</th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
<th>Rating Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>I think about what I know to help me understand what I read.</td>
<td>2</td>
<td>2</td>
<td>21</td>
<td>13</td>
<td>16</td>
<td>3.72</td>
</tr>
<tr>
<td>I preview the text to see what it is about before reading it.</td>
<td>1</td>
<td>8</td>
<td>14</td>
<td>18</td>
<td>13</td>
<td>3.63</td>
</tr>
<tr>
<td>I think about whether the content of the text fits my reading purpose.</td>
<td>0</td>
<td>8</td>
<td>15</td>
<td>16</td>
<td>15</td>
<td>3.70</td>
</tr>
<tr>
<td>I skim the text first by noting characteristics like length/organization.</td>
<td>4</td>
<td>5</td>
<td>18</td>
<td>11</td>
<td>15</td>
<td>3.53</td>
</tr>
<tr>
<td>I decide what to read closely and what to ignore.</td>
<td>2</td>
<td>8</td>
<td>18</td>
<td>16</td>
<td>10</td>
<td>3.44</td>
</tr>
<tr>
<td>I use tables, figures, and pictures in the text to increase my understanding.</td>
<td>3</td>
<td>2</td>
<td>17</td>
<td>16</td>
<td>14</td>
<td>3.69</td>
</tr>
<tr>
<td>I use typographical aids like boldface and italics to identify key information.</td>
<td>3</td>
<td>0</td>
<td>11</td>
<td>9</td>
<td>22</td>
<td>3.70</td>
</tr>
<tr>
<td>I critically analyze and evaluate the information presented in the text.</td>
<td>0</td>
<td>9</td>
<td>20</td>
<td>13</td>
<td>10</td>
<td>3.48</td>
</tr>
<tr>
<td>I check the difficulty of the text before I read.</td>
<td>9</td>
<td>11</td>
<td>19</td>
<td>9</td>
<td>5</td>
<td>2.81</td>
</tr>
<tr>
<td>I use the organizational structure of the text to help me learn.</td>
<td>2</td>
<td>5</td>
<td>18</td>
<td>16</td>
<td>12</td>
<td>3.68</td>
</tr>
<tr>
<td>I check my understanding when I come across conflicting information.</td>
<td>1</td>
<td>5</td>
<td>12</td>
<td>20</td>
<td>14</td>
<td>3.79</td>
</tr>
</tbody>
</table>

Table 3
4.6.2 Problem-Solving Strategies

Problem-Solving Strategies, (PROB) focus on monitoring the comprehension and repairing the strategies to have a better understanding of the text meaning (e.g., re-read the text to increase comprehension). There are seven problem-solving sub-strategies in this questionnaire.

![Table 4]

Table 4

Regarding this type of strategy, students gave a high preference to re-reading technique as the consistent approach they always promote when they have difficulty understanding the text. 39.62% of ESL students know that they re-read the passage to help them get a meaningful comprehension. On the other hand, stopping from time to time to reflect on their reading was perceived to be the least used strategy where only 11% of students reported that they sometimes use it while 42% were uncertain.

4.6.3 Support-Reading Strategies, (SUP)

Support-Reading Strategies, (SUP) include the usage of mechanisms to sustain effective interaction between readers and text. (e.g., using the dictionary to define unfamiliar words). There are nine types of support-reading strategy.
Table 5

This type of approach supports students’ interaction with the text by going back and forth among the ideas of the reading. This supports the idea that reading is an interactional process between the reader and the writer; the reader needs to spend time reflecting on the meaning and interacting and having a conversation with the author and his or her purpose of writing, and summarizing and paraphrasing the main ideas. The commonly used strategy in this type is underlining the main points (weighted average of the whole group = 4.15) This is the most popular strategy ESL students employ in their academic context. 48.08% of students stated that they highlight the main points, new words and phrases to help them remember them. However, reading aloud while reading and drawing a semantic map after reading are the least used strategy. Just 23.08% of students claimed that they read aloud to understand the complicated type of reading.

4.7 Participant-generated strategies

In this section, I asked students what they usually do when they have difficulty understanding the meaning of a reading passage. They came up with these ideas, which are: asking someone to help them with the reading, using the dictionary, identifying the most important information in the text, re-reading the text again, translating the words into the first language, and guessing the meaning (see Figure 3). These are the methods ESL students came up
with in the survey and usually promote to overcome reading difficulty. Based on these responses, we can say ESL students are aware of some reading metacognitive strategies that they promote in reading.

4.8 How many times do ESL students read to comprehend the text?

Survey responses show that re-reading the text is the most common strategy students usually use in reading. One of the survey questions asked the students how many times they read the text in order to understand it. The responses show that 51% of students read the passage twice, 17% of students stated that they read the text once, and the other 11% of students responded that they read the text more than three times (Figure 4).
How many times do you have to read an academic text to understand the meaning in English?

Answered: 35  Skipped: 33

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Once</td>
<td>17.14%</td>
</tr>
<tr>
<td>Twice</td>
<td>51.43%</td>
</tr>
<tr>
<td>Three times</td>
<td>17.14%</td>
</tr>
<tr>
<td>More than 3 times</td>
<td>11.43%</td>
</tr>
<tr>
<td>Other</td>
<td>2.86%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
</tr>
</tbody>
</table>
5 DISCUSSION

5.1 Introduction

This chapter will discuss the findings of my research study and address my research questions. This study is based on four questions that investigate students’ awareness of their readings strategies, the most frequent metacognitive reading strategies and whether they differ in terms of gender, the least used strategies and what the researcher’s perception are about them, the difference between low- and high-English proficiency students, and the challenges ESL students encounter with reading. In this discussion, I will interpret the results and how these results answer the research questions. In addition, there are some implications for TESOL teachers, especially EFL teachers.

By looking at these data resources, I can compare the data to answer my first research question, which is to what extent ESL students are aware of metacognitive reading strategies. The results of the survey, interviews and observation show that ESL students are aware of some metacognitive strategies, but they are not consistently using them. This study also revealed that there are beneficial strategies ESL students do not use due to their limited emphasis in the classroom. Another possible interpretation is that not all ESL students succeeded in using metacognitive reading strategies in their English classroom. For example, when some of my interviewees said that they guess the meaning of new words, I asked them how they guessed the meaning and what kind of strategies helped them to find the meaning. They explained how that this strategy helps them to read fast and did not talk about how they apply it. Through observing
some ESL classes and surveying ESL teachers, I recognized that this deficiency is not due to limited emphasis on teaching these strategies explicitly. The results of the teachers’ survey showed that teachers are consistent teaching this strategy in their classroom. One possible reason could be students’ attitudes toward using this strategy. Students might not feel motivated to apply the strategies they learn in school on their own independently. Another possible interpretation could be that they do not know how to approach this strategy on their own. In this case, it shows the importance of giving students a lot of chances to practice at school without testing them as well as motivating them toward the strategies by explaining their benefits and the need of using strategies inside and outside the classroom. Indeed, even though students seemed to be aware of some metacognitive strategies, they do not know how to approach them in an effective way. I confirmed through interviewing students and observing them in their reading class. Not knowing how to approach reading effectively prevents students from practicing using these strategies in their daily learning and decreases their motivation towards reading. Teachers need to model to students how they guess the meaning from the context as well as asking them to practice it in the classroom.

Moreover, this research helped answer my second set of research questions which are: what are the most used strategies and whether these strategies are effective in enhancing students’ reading ability, and how they differentiate based on their gender. Regarding the main three metacognitive reading strategies, the results show that participants tended to use “problem-solving strategies” at high frequency and “support reading strategies” at low frequency. Likewise, ESL students reported using problem-solving strategies and global-reading strategies more frequently than support-reading strategies. In addition, I found that women had higher preferences for the support reading strategies than men. This aligns with what other researchers
have found (Martinez, 2008, Shikano, 2013, and Khoshsima & Samani, 2015). Compared to 
males, females reported using almost all support reading strategies, such as summarizing, 
paraphrasing, discussing the reading with classmates, drawing a semantic map and note-taking. 
This shows that women might use top-down strategies for better comprehension while males are 
more focused on using bottom-up strategies, since they are more interested in promoting 
problem-solving strategies such as paying closer attention to what they are reading. Another 
possible interpretation could be that women are more likely to articulate what they read by doing 
post-reading activities that promote writing and reflecting on the reading, which can be seen as 
the primary reason for this higher frequency of usage.

    However, if we disregard the main categories such as global- reading strategy, problem 
reading-strategy, and support-reading strategy, we can identify that the most common sub-
strategies among my participants are: re-reading the text, guessing the meaning from the context, 
underlining the main points of the text, and paying close attention to what they are reading. 
Conversely, drawing a semantic map, reading out loud, thinking aloud, evaluating the text and 
questioning the author tend to be the least used strategies of ESL readers. Even though there are 
some researchers who talk about the advantages of promoting these strategies in reading, there 
are still some students that do not use them in their reading. One possible interpretation might be 
that these types of strategies are being avoided by students since they require students to promote 
intellectual processes through thinking and reflecting on their reading.

    5.2    The most used strategies, their effectiveness, and implications

        In this section, I will discuss the most used strategies and what other researchers have 
found about the effectiveness of these strategies and implications on how to approach these 
strategies in the classroom, specifically in the ESL and EFL context.
The first common stated strategy in this research is re-reading. 76% of students stated that they re-read the text to enhance their understanding. Looking at what other researchers have found about this strategy, we see that this strategy helps to increase students’ understanding of the reading, so teachers often ask their students to read the text “more than once” to have a better understanding (Çakici, 2016, p. 191). This contradicts the findings from my teachers’ survey. This is because if students do not stimulate their prior knowledge, skim and scan for the main ideas before they read, read in chunks and guess the meaning of the unknown words while they read, they will keep reading for several times without monitoring their comprehension, and this becomes a habit which reduces their reading fluency. From this perspective, students should develop their abilities to read fluently as well as their ability to use more metacognitive reading strategies at one time.

Additionally, there are many researchers (Mokhtari and Reichard, 2002) who state that there are more efficient ways of understanding and remembering written material than re-reading the text. These include pre-questioning, note-taking, underlining the important information and various other metacognitive techniques. One possible interpretation is that re-reading is easier and less intellectually demanding and therefore more likely to be used. The most effective strategies are the ones that get students engaged in the text. This is because reading several times without regulating the comprehension is time consuming. Students need to learn how to observe and regulate their thinking while reading in order to comprehend the meaning and remember it in the future.

The second common strategy is guessing the meaning. 57% of students agreed that they guess the meaning of new words in reading. In the survey’s response, students seemed aware of the benefits of using this strategy in their reading; However, the results of the observations and
interviews suggest that not all students are able to approach this task in the most effective way. By comparing the data sources, the findings suggest that ESL students are not aware of the importance of using a variety of ‘word recognition’ strategies in their second language acquisition. Therefore, ESL students should be trained on how to deal with complex words in reading through teaching metacognitive strategies explicitly in the classroom.

ESL students need more practice with word recognition and guessing the meaning from the context. This supports the findings of Althewini, (2016), which state that ESL and EFL teachers should help students “in developing word recognition, learning how to comprehend the text in an effective way, being aware of text structure, and becoming a strategic reader” (p. 94). This means that the main challenge students face with reading is the vocabulary. Laufer and Nation (1995), stated besides the vocabulary issue, there are some factors that influence students’ lexical knowledge such as the familiarity of the topics.

Thus, paying more attention to this factor and teaching some word recognition strategies explicitly will increase students’ reading speed as well as motivate them to read more in their second language. Asgari and Mustapha (2011) mentioned some effective strategies ESL students can use to enhance their vocabulary knowledge. Students can develop their vocabulary size through applying new words in their daily interaction, using the monolingual dictionary, and increasing their vocabulary through reading and listening to the English-language media.

In terms of guessing the meaning, there are some strategies fluent readers can use to guess the meaning of new words, such as looking at the context of the words and the sentences that come after and before it, identifying the part of speech of the word, and finding out the definitions for some words by looking at how it was used among the sentences and synonyms of the words. Teachers should teach these strategies explicitly in the classroom and model for the
students on how to employ them while reading as well as encourage students to use them when they are alone. Teachers should integrate the teaching approach introduced by Chamot and O’Malley’s (1994), “Cognitive Academic Language Learning Approach.” This approach includes four steps:

- **“Preparing stage”:** teachers prepare students to the new instruction, motivate and encourage them to use them in their reading.
- **“Presentation stage”:** teachers explain the effectiveness of being aware and using some metacognitive strategies in reading.
- **“Practicing stage”:** teachers model to the students how to use these strategies in an effective way and give them the chance to practice.
- **“Evaluation stage”:** teachers give students the chance to evaluate the new strategies and let them decide whether the strategies were effective for them.

These help students to know when, where, how, and under what conditions to use these strategies. Students might benefit from giving sufficient time to get used to new strategies and adapt them to their learning process. In my research, teachers claimed if they demonstrate to the students how to use metacognitive reading strategies when their readings’ comprehension breaks down, it helps students to be more motivated to use them on their own outside the class. This can happen by asking the students to question themselves when they read a text and regulate their reading comprehension to eventually see what factors that influence their readings and how they can overcome them.

The third stated strategy is identifying and underlining the main points. 67% of students stated that they mark the main information of the reading text. The results of the survey and students’ interview and students’ reading books showed that students consistently use this
strategy. One possible reason is that teachers ask them to practice using this strategy consistently with reading. One interviewee confirmed it saying, “my teacher ask me to highlight the main points and I did it.” In terms of the effectiveness of underlining and annotated strategy, OHara, and Sellen (1997) state that finding the main ideas is an important skill students should promote in reading. This is because it helps to increase students’ comprehension of the text as well as to pay attention to the structure of the text and be prepared to write a summary. Teachers need to explicitly teach this strategy in English classrooms, especially with readers who are still developing their reading skills.

The fourth most used strategy is paying closer attention to the reading when the text becomes difficult. 71% of students informed us that they apply close reading to overcome the difficulty. The results of data show that students use this strategy often when they have challenges understanding a new academic concept. This strategy represents a close reading approach; students deeply engage with the texts and distinguish the text’ structure to enhance their understanding. Grote-Garcia, and Frost (2015) define close reading as “a way to scaffold literacy instruction when reading a complex text” (p.4). This means that close reading assists students to compensate for their reading difficulty especially when their comprehension fails. Thus, paying closer attention to the reading text can be one technique of close reading strategies, which helps students to deal with the complexity of the text. It seems that this strategy encourages students to monitor their readings to overcome the issues they might face with the reading.

The results of the interviews indicate that there are some common additional strategies ESL students use in their reading are using the dictionary and asking someone for help. 20% of the students stated that they use the dictionary to comprehend the meaning of unknown words.
Similarly, 20% of students stated that they ask someone to help them with their reading when they struggle understanding it. One possible reason might be that students are less confident to guess the meaning of new words from the context. Therefore, looking for the definition in the dictionary seems to them more easy and reliable way to get the meaning.

5.3 The least used strategies, their effectiveness, and implications

By comparing the data, I can answer my third question: are there some strategies that ESL readers rarely use even though they are effective in enhancing students’ reading ability? The data show that there are some strategies that are not used even though they are effective. These strategies are: drawing a semantic map after students finish reading, reading out loud when facing conflicting information, thinking out aloud while reading, and checking and evaluating their comprehension (Mokhtari and Reichard, 2002). One possible interpretation could be that these strategies require more intellectual processing and time. My interviewees discuss how these strategies require them to think and observe what they are thinking while reading. Another possible reason is that students think that they do not have to use this strategy unless their teacher tells them to. While students stated that they rarely use these strategies in their reading, these strategies are still quite effective.

38% of students that they use this strategy in their reading while 62% of students stated that they do not use at all. In terms of the effectiveness of drawing a semantic map strategy, Vaughn and Edmonds (2006) state that drawing a semantic map offers visual components that help students to notice the relationship between the existing knowledge and what they will learn from the text. This strategy does not just help to enhance students’ reading comprehension, it also develops their vocabulary and helps them acquire new word families. Teachers can approach this task by asking students to brainstorm what they already know about the assigned
topic. Then, the teacher should ask students to draw a semantic map about the vocabulary that they think would emerge in the text. After they finish reading, they should complete their map by adding the key words that they learned from the text.

The second least-used strategy is reading out loud when facing conflicting information. 62% of students stated that they do not use this strategy even though of its emphasis in the classroom. According to Santoro, Baker, Fien, Smith & Chard, (2016), reading aloud assists students to find out the main ideas and see how different points of the text are related to each other. In addition, this strategy helps “students to see what reading comprehension looks like” (p.285). This means that reading aloud helps students hear what they read and then realize if there are some points that are not clear to them, and recognize how the text is structured. This could apply to the EFL context; EFL teachers can approach this reading strategy in a different way. The teachers’ responses in the survey suggest that instead of students reading aloud for their teachers, students can be in groups and read aloud to each other. This helps to enhance students’ oral language as well as their reading comprehension.

The third least-used strategy is the think-aloud strategy. 68% of students stated that they do not agree to use this strategy in their reading. This strategy was introduced by Newell and Simon (1972). If we look at the benefits of the thinking aloud strategy, we find a lot of researchers who talk about the effectiveness of using this strategy in the classroom, one of whom is Block (1986) as cited in Channa, et al (2015). He states that the think aloud strategy helps learners to verbalize and articulate their thoughts as well as receive help from the teachers who encourage them to practice this strategy after modeling to students how to use it with reading. In addition, Anderson (1991) demonstrates that the think-aloud strategy facilitates students’ ability in summarizing the main important of the text and clarifying their confusing and difficult
materials. This means that the think-aloud strategy assists students to notice the gap that might happen while they are reading; the gap between what they already know and what they have not understood. Thus, this strategy helps students to notice their reading comprehension and regulate their thinking as they are reading.

The fourth strategy students do not use is evaluating the text. 71% of students claimed that they do not use this strategy. With evaluating the texts and questioning the authors’ purpose of presenting specific information, students engage in comprehending the text and develop a deeper understanding of the text. Teachers need to build fluent readers by encouraging students to use “high order thinking skills” and recognize the need of tagging their feelings and reactions towards the text during reading rather than memorizing the written information (Durham and Raymond, p.48). These moments could happen when the students say: this text reminds me of what I read in another book, I do not like this article because....., what does the author means by saying this?, that is an interesting idea, and I did not know that ...., etc. Introducing these sentences frames encourages students to show their emotions as they read and this helps to develop their critical abilities and engage more with the text. Practicing using this strategy explicitly in the classroom helps students to recognize how this strategy helps to increase their comprehension as well as their vocabulary.

It becomes obvious that there is a need to teach these metacognitive strategies explicitly in the English classroom regardless of students’ language levels. Besides that, ESL teachers need to be able to assess students’ awareness of their strategies with all subjects, not just with reading. There are two main reasons why the analysis of student’s metacognitive awareness matter: the first reason is that we gain a greater understanding of the type of “metacognitive, cognitive, social, and affective methods students use in their learning process” (Grenfell & Harris, 1999 as
cited at Chamot, 2005, p112). The second reason is the fact that all language learners at different levels can use these strategies for language improvement.

5.4 The challenges ESL readers face when reading an academic passage

The findings of this study reveal that there are some challenges that ESL readers face when they are reading an academic passage. The complexity of a text and unfamiliar words are perceived to be the most challenging factors ESL students face when reading. The lack of background knowledge is another obstacle ESL readers mentioned in this study. This supports what was mentioned by Vaughn and Edmonds (2014), saying that comprehension breaks down when students face one or more of these problems: reading a text with complex words, difficulty understanding the meaning of some academic words, and inability to connect the prior knowledge (p.132). These findings show that students are not aware of the importance of using a variety of word recognition strategies in their second language acquisition. Aloagtani, (2015) stated that there are two types of vocabulary: productive and receptive vocabulary. Productive vocabulary are the words that an individual can produce and use when speaking and writing. It is important for the students to know how to pronounce these words correctly to express their thoughts clearly. In contrast, with receptive vocabulary, students need the context to understand these words and sometimes these words cannot be produced. Students need to understand just when they are reading, but they do not have to produce them when speaking and writing.

Many researchers perceived that the lack of vocabulary knowledge hinders second language acquisition. Nation (2001), as cited in Alqahtani (2015), describes the relationship between vocabulary and language development by saying when the students know more vocabulary, they are more willing to communicate in their second language and motivated to use these words in different contexts. Thus, this communication in their second language helps to
increase students’ vocabulary further. This can be applied to reading, when students know how to face new words while reading and apply the guessing strategy, this would speed their reading and make them feel more motivated to read. The opposite happens if they do not know how to guess and figure out the meaning of unknown words without using a dictionary. Besides that, Keshavarz and Mohammadi (2009) stated that “the required vocabulary knowledge seems to differ according to the genre of the text” (p.8). This means that there is a relationship between the types of genre and the presented vocabulary, so students need to deal with different types of texts as well as the words that come within it, no matter how proficient they are. Therefore, ESL students should be trained on how to deal with complex words in reading through the explicit teaching of metacognitive strategies in the classroom. This may cause many improvements in reading, especially for non-native speakers who need to develop their reading abilities and become strategic readers in their second language. It is important to be aware of reading difficulties and the types of strategies used in reading. Besides that, teachers can motivate students by enhancing their metacognitive skills, providing interesting texts and helping students define their purpose for reading.

Teachers should increase students’ awareness of the text features. According to Pardo (2004), “because features of the text are beyond a teacher’s control, teachers select texts that have obvious structures, they teach a variety of narrative genres and some expository text structure” (p.275). This means that teachers need to teach students how to identify the type of the text they are dealing with. For example, teachers can teach students how to look for reading cues in nonfiction: reading charts, tables, graphs, looking for the italics and bold points to determine the important points of the text. Teachers should explain some text features that help students to connect the meaning of the text type, such as comparison, description, sequences, and cause and
effect.

Teachers also can stimulate students’ background knowledge by assigning them to create graphic organizers for their reading, which helps them to connect the new concept with what they already know. Teachers can ask students to find the connection between texts, text-to-self and text-to-world (Pardo, 2004). Another example could be starting the lessons by teachers demonstrating the think-aloud technique and forming questions about the texts and evaluating how much students know about this topic. This helps to build students’ schema and encourage them to learn the new concept.

5.5 The significant differences between low- and high- proficiency students in their perceived use of metacognitive reading strategies

By comparing the data, I can answer my fourth question: are there any significant differences between low- and high- proficiency students in their perceived use of metacognitive reading strategies? T-tests were performed to compare students grouped by level on their perceived use of each metacognitive reading strategy. The results show that there is no significant difference between the used strategies regarding the students’ English proficiency, through JMP, the t-test was performed, each single reading strategy was analyzed by students’ level. The t-test showed no significant difference in the problem-reading strategy: I think aloud while I am reading. The findings show that high-proficiency students (M= 4.1, SD= 1.45) are more likely to agree to use this strategy than low-proficiency students (M=3.42, SD= 1.61) t (37.86) = 1.56, p= 0.06. The second tendency showed in the global-reading strategy: I preview the text to see what it is about before reading it, high-proficiency students (M= 4.89, SD=0.87) are more likely to use this strategy than low-proficiency students (M= 4.45, SD= 1.22) t (47, 84) = 1.51 p= 0.06. The third slight difference appears in problem-solving strategy: I try to make a
picture I my mind about what the text is saying, high-proficiency students (M= 5.00, SD=0.76) tend to use this strategy in their reading more than low-proficiency students (M= 4.54, SD= 1.26) t (49, 49) = 1.63 p= 0.05.

However, there are some strategies that seemed to be promoted more by low-proficiency students. One of these strategies is the problem-solving strategy: I adjust my reading speed according to what I am reading: high-proficiency students (M=4.27, SD= 1.17) while low-proficiency students (M=4.88, SD= 1.12) t (33, 27) =1.78, p= 0.04. The second difference showed with the global-reading strategy: I use tables, figures, and pictures in the text to increase my understanding. Low-proficiency students tend to use this strategy often (M=4.91, SD= 1.31) and high-proficiency students tend to use it less (M= 4.15, SD= 1.57) t (31,81) =1.78 p= 0.04.

The results showed no significant differences between low and high proficiency students, but surprisingly low proficiency students showed a strong tendency to two strategies: adjusting their reading speed and using the visual aids to understand the reading. High-proficiency students are more likely to think-aloud about their reading, preview the text before reading it, discuss and picture the text in their mind. Even though there is no significant difference in high-proficiency students’ favor, we can say that high-proficiency students might tend to use more reading strategies than low-proficiency students do. One possible interpretation is that the more students become advanced in their second language, the more metacognitive reading strategies they use in their reading.

The t-test show that there are significant differences in some of the strategies, but not all of them. One possible interpretation could be that there are no pre-determined strategies that should be expected to be used by students based on their language levels. Students are the only
people who can decide which strategies that work for them based on their needs regarding their reading difficulty. At best, we can propose that students differentiated in their use of reading metacognitive strategies and these differentiations might be related to their educational background, their first language, or their attitudes towards these strategies. Thus, further research should be done with a greater number of students.

5.6 Implications

Teachers should identify what kind of strategies students tend to lean toward and what strategies they should begin using. Students tend to use strategies that they think are beneficial for their reading, but teachers might know different strategies that could be more useful and they can help students to identify these strategies and use them effectively. To reach that, policy makers and curriculum designers should introduce some metacognitive strategies in the reading books with suggestions of how they should be taught in the classroom. This would give the teachers a clear idea of how they can integrate teaching these strategies and how they can be assessed among students. It will help to design appropriate activities that will address strategies while teaching the content of the curriculum.

The findings of teacher survey indicate that teachers teach some reading strategies, but they do not explain the purpose of teaching these strategies explicitly. One possible interpretation is that teachers think that their students do not need to know the goal of each action they take in the classroom. Here it comes the need of preparing students and explaining the effectiveness of each strategy that has been taught in the classroom for the purpose of increasing students’ awareness of the benefits of using these strategies outside the classroom to improve their reading ability. Another possible interpretation might be teachers’ concentration on teaching the
language and the content results to less emphasis on building independent readers inside and outside the classroom.

Teachers’ different perspectives on how second language acquisition should be approached and focusing on covering the curriculum can prevent them from identifying and recognizing the challenges their students face. When students do not do their reading assignments, teachers might assume that they are not motivated and they are not productive learners. It will be helpful to have insightful understanding of students’ perspectives, and beliefs toward their learning assignments. Teachers are observers who can recognize some of the challenges students face, but cannot decide which is the most challenging difficulty students face in reading. Students experience a lot of new academic vocabulary and complex grammar structures, which discourages them from reading in their second language. According to Keene and Zimmermann (1997), “when thinking about our students, we need to ask whether they are aware of enough of their thinking during reading to solve problems they may encounter and enhance their comprehension as they need” (p.37). ESL and EFL teachers specifically need to realize whether their students are aware of the beneficial reading strategies as well as questioning their students about the challenges they face in reading and address them in the class.

Assessing students every time they use their strategies might hold them back from practicing and using what they learned. This comes from the fact that not all the strategies work for the same students. Students will choose their own techniques based on their needs and abilities. In the context of the ESL environment, I believe that there is a need for building a safe classroom environment where students can learn and develop their own learning strategies to avoid raising their affective filter that might come from being tested. Students need to believe in their abilities and be confident using and trying new approaches in their learning without being
afraid of losing grades. In my opinion, teachers should avoid testing students on their learning strategies. They need to convince their students to use them by modelling these strategies for them, showing them how beneficial these strategies are, and giving plenty of chances to use them by themselves.

Furthermore, giving a clear objective for each strategy and telling students the goal encourages them to become stakeholders in their education. It also helps them to understand the purpose of these strategies and make learning more interesting for them. Teachers ought to know what their students need and what they expect to learn. If the teachers know their students’ desires, they can better design an improvement plan that best serves their students’ interests. It has been known that informing students what they will learn from the assigned course, and their progress in the course keeps them aware of their performance (Graves, 2000). Students should be aware of the importance of self-awareness in their second language acquisition.

Most researchers characterize the knowledge of the metacognitive reading strategies to be an essential factor in defining a good reader. This could apply for all students, but specifically ESL and EFL students. EFL and ESL students need be aware of strategies that could help them to be independent readers. Therefore, teachers may consider explaining to their students the usefulness of promoting these strategies in facilitating their language acquisitions process as well as encouraging them to use them.

The results of this study can be applied to all kinds of educational fields. It is important for EFL teachers to know what kinds of strategies their students are aware of, what skills they developed on their own, and what skills they have not developed. Teachers should be able to design a successful assessment plan to measure the effectiveness of their approaches and their students’ progress. The questionnaires that were used in this survey could be an example for
assessing students’ awareness of their reading abilities and strategies. EFL and ESL teachers should make their classrooms serve as a bridge to build independent learners in their target language. Modeling helps students to process and practice their target language knowledge in an interactive way. Students always learn and perceive a lot of input in their second language, but sometimes they do not have the chance to practice what they learn in an authentic situation. It is substantial to focus on building independent learners when teaching the content. Students need to be aware of their abilities, strategies, and beliefs when they are approaching different tasks in their second language.

In the TESOL context, to build independent readers, teachers should provide students with sufficient time to practice these metacognitive strategies in reading. Moreover, ESL and EFL teachers should consider the issues that might prevent the students from employing these strategies in their classroom; “some issues can be the unwillingness of the students, hardness to break old habits of both teachers and students, limited time, and so on all render it more difficult to apply strategies,” (Çakici, 2016, p. 192). Reading is not just learning how to decode words, rather it is activating the schema, understanding the meaning of the texts, finding the author’s purpose, and making inference among the ideas. To improve performance, both teachers and students need be aware of the benefits of reading strategies and have the motivation to develop it inside and outside the classroom. Students may read for pleasure outside the classroom and find the classroom readings are not enjoyable. Instructors should be conscious of the students’ interests when designing the curriculum and relate students’ life to their learning.

Another approach can be extensive reading: reading for fun. Extensive reading is a commonly used among the ESL context, but I would contribute to this practice by encouraging teachers to assign students to learn, and practice a new strategy every time they have extensive
reading. Students need to enjoy reading by finding the reading that match their interest and fit their levels as well as practicing these strategies for fun.

5.7 How to promote metacognitive strategies in the classroom

In some EFL/ESL contexts, when you have 70 Students in your classroom, it is necessary to teach students to be independent in their learning and face the difficulties they encounter while enhancing their language skills, whether they are learning the target language as a foreign or second language. To have students feel enthusiastic to learn no matter what the obstacles are, and know what their weakness and strengths in their learning are, teachers should teach metacognition as a significant tool to prepare students for “life-long learning,” (Boghian, 2016, p.1). The following sections provide a variety of activities that help to promote and increase students’ metacognition.

5.7.1 Reflective journals

The first activity is promoting the reflective journal. The reflective journal has a significant role in improving students’ metacognition. Students with a journal reflect on their own thinking and experiences and how they learn and acquire something (Thamraksa, 2005). They do meaning making in their mind to figure out what they did and what they did not do correctly and make it clear for themselves when they express these thoughts through writing. This way helps students to realize what they know, what they do not know, and what they want to learn about. Teachers should encourage students to write about their feelings, thoughts, dreams, beliefs, and attitudes toward learning. There is a type of reflective journal that has been effective called a dialogue journal. In this type of writing, student write whatever they want; they can write comments, questions and observations and give to the teachers. Then, it becomes the role of teacher to respond to these questions and give it back to the students. This kind of
strategy helps students to have a conversation with teachers, thus it helps teachers to know about the ways their students communicate and think, and what they know and what they do not. This written conversation encourages both teachers and students evaluate what they think about, and notice how this influences their beliefs and attitudes.

5.7.2 Talking about thinking strategy

The second activity is “talking about thinking,” (Thamraksa, 2005, p.3). This term is like “thinking about thinking” which was introduced by Richard and Paul (n.d) defined as “thinking about your thinking, while you are thinking, in order to make your thinking better” (as cited in Shaarawy, 2014, p 121). Besides that, this approach encourages students to engage in self-talk and observe their own thinking while achieving a task. For example, before reading, learners talk about their plan to read, what they already know, and what they anticipate with the topic. During reading, they recognize the type of strategies that are being used and analyze the type of difficulties that they are facing in reading and how they cope and deal with these strategies. After reading, they ask themselves whether they succeeded or failed in comprehending the passage and what they want to do for the next reading (Thamraksa, 2005). There are some researchers who talk about the need of doing pre-reading activities to help students activate their prior knowledge and increase students’ awareness of what they already know and what they need to know. Kader (2008) is one of them. Kader claims that the fact that students’ first language reading strategies can not be transferred automatically into their second language makes students feel that they must start from the beginning by looking at each single word when reading and stop on unknown words, which is bottom-up strategies. Therefore, teachers should motivate and train students to use top-down strategies, such as skimming the reading for important ideas, scanning the text for particular information, as well as silent reading for quick understanding.
5.7.3 Self-questioning strategy

The third strategy is self-questioning. Students with this activity ask themselves some questions that improve their metacognitive thinking. The role of the teacher is to facilitate this process by guiding students to answer questions (Thamraksa, 2005, p.4).

Before doing the task: students ask themselves:

1- “What is my prior knowledge that will help me do this task?”
2- “What should I do first?”
3- “What is my expectation in doing this task?”
4- “How much time do I need to complete this task?”

During the task:

1- “How am I doing?”
2- “Am I on the right track?”
3- “What strategies am I using?”
4- “Should I use a different way/strategy to complete this task?”
5- “What other things and information should I need?”

After the task: In this process, students start to evaluate their actions and the outcomes by asking these questions: (Thamraksa, 2005, p.4).

1- “How well did I do?”
2- “What did I learn from doing this task?”
3- “What I learned more or less than I had expected?”
4- “Do I need to redo the task?”
5- “What could I have done differently?”
This may cause many differences, especially for non-native speakers who need to develop their reading abilities and become strategic readers in their second language. It is important to be aware of their reading difficulties and the types of strategies they use in reading. Besides that, teachers can motivate students by enhancing their metacognitive skills, providing them with interesting texts and helping students define their purpose for reading.

According to Desautel, (2009), there is a need of classroom activities that include students in the creation of rubrics of the course. Setting the goal, explicit strategy instruction, self-assessment and conversation are the approaches that teachers integrate to enhance students’ metacognitive strategies. It is also important to familiarize ESL teachers and students with the need of self-reflection in their learning to support their professional development.

Students need to develop their reading strategies by promoting both cognitive and metacognitive knowledge. As an EFL teacher, I believe that we need to integrate teaching metacognitive strategies with language teaching skills. If the goal is to develop critical independent readers, then the environment of the classroom should support opportunities that engage readers with the text by teaching metacognitive strategies. The results indicate that students are not aware of the importance of using a variety of ‘word recognition’ strategies in their second language acquisition. Therefore, ESL students should be trained on how to deal with complex words in reading through teaching metacognitive strategies explicitly in the classroom.

5.8 Limitation of the Study and Recommendation

One of the limitations was number of participants. Ideally, we wanted several hundred of students, but I have 68 responses. With a bigger sample of students, I would have more variety in my sub-categories, such as age, gender, and length of learning. While the findings show interesting results between two group, there were not enough students in sub-group in order to
make conclusive results. Another limitation is that my data relies on self-reporting and it is hard to know whether students understand the same questions in the same way. Ideally, we would like to find another way to find out if students are using them, such as eye tracking instrument. In addition, there were too many strategies that I was looking at, so in the future, it would be more effective to have few strategies and have it more concentrate on specific strategies. Finally, when I sent my survey, I sent out to any ESL students I know, I do not know the context of their ESL program. Therefore, it would be better if we have some distinction, so I know the school students are attending and the instruction they are taking.

To further develop this research, I would like to have a control group and an experimental group, who would be given pre- and post-tests after being exposed to explicit metacognition instruction in reading. I would measure the difference in the post-test between the groups to determine whether explicit metacognitive instruction has any effect on their reading comprehension. As an alternative plan, I could teach the least used metacognitive reading strategies for five weeks. In each week, I would introduce two types and assign students to practice using them inside and outside the classroom. Then, I would give students a test at the end of the week. After we covered all the strategies, I would compare the scores students got in each week and see if there was a difference. I would define the methods that I used when teaching these strategies and whether they were effective in enhancing students’ reading abilities. In addition, I would videotape students while they are using these metacognitive strategies explicitly in their reading to see if there are some changes that might happen during their reading process. I could repeat the study and focus on specific genres and interview more students and ask them about the types of metacognitive strategies they use to deal with different types of genres.
The results of the survey show that women tend to prefer to use support-reading strategy, so an interesting action research could be about gender preferences. This could be a follow-up project or a new research paper. Besides that, this study aimed to investigate students’ use of metacognitive strategies in their second language, I keep wondering about their use of metacognitive strategies in their first language, therefore, further research about students’ metacognitive strategies in their first language could be interesting.

5.9 Conclusion

This study revealed that ESL students are aware of metacognitive strategies but they are not consistent at using them. At the same time, there are beneficial strategies ESL students do not use due to the limited emphasis on teaching them in the classroom. Teaching metacognitive reading strategies is an important approach teachers should incorporate into classrooms. Since there are linguistic differences between English and learners’ native languages, there will be a lot of unknown words and different types of texts; learners need to be aware of how to regulate their own their learning and notice what factors influence their reading ability. Students need time to get used to metacognitive strategies before being asked to apply them. Teachers should model to the students how to apply metacognitive strategies in reading as well as preparing students to use strategies independently.

The study also shows that students are aware of some strategies, but not all of them, so there is a need for further emphasis on using strategies in the classroom. There are some strategies that researchers stated as effective strategies that should be used when having reading difficulty such as “reading aloud and drawing a semantic map” (Santoro, et al). Teachers should encourage students to believe that reading is easier and less challenging when they use all types of strategies (global reading, problem-solving and support-reading strategy). Students need to be
aware of the need of self-awareness in helping them acquire their language skills effectively. Explicit learning and motivation are essential tools for effective education, so teachers need to motivate their students to keep practicing and acquiring new strategies to be independent learners. In addition, teachers should encourage students to monitor their own reading, using the thinking aloud method.
6 REFERENCES


https://www.harford.edu/~/media/PDF/StudentServices/Tutoring/Metacognition%20Awareness%20Inventory.ashx


http://dx.doi.org/10.1598/JAAL.51.2.5


Appendix A

**My interviews with Students**

**T: What do you do when you have difficulty understanding the reading?**

S1: Oh, I guess read  
S2: Find the meaning, look at the text.

**T: What do you know about guessing the meaning of strategy?**

S1: This is really good idea, improving the guessing ability. When I was in Korea, I understand all of unknown words, it is boring but know, Jennifer said that you have to improve guessing ability. I really useful I can read fast. It is good strategy. After that, I did not use dictionary so much. I did not feel boring when I read.

**T: How do you guess the meaning of unknown words?**

S1: If we can do that, it is a really useful. I used to, like, use dictionary. I always use dictionary. Every time, I found new words. It is changing a little bit. Now, I try to guess the meaning.

**T: Which one do like the most, guessing the word or using a dictionary?**

S2: Using dictionary, just guessing and pass. Guessing do not help to improve my vocabulary. I can read a lot, but my vocabulary always the same.  
If I use dictionary, I can write the meaning in Korean and maybe try to memorize it. If I did not use the dictionary, I did not memorize the words, hahahah, it is just in my case.  
S2: I think using the dictionary can improve my language. When we use English-English dictionary we can find the spelling of the word and it improve out English.

**T: What kind of dictionary do you use?**

S1: I use online dictionary.  
S2: I use oxford dictionary.

**T: If Jennifer gave you a reading passage and asked you to read it at home, how many times would you read it in order to understand?**

S1: I would read it three times and If I did not understand I would ask someone.
S2: I also read the context more than five times and see.

T: Imagine with me, you have a book and you read it several times. This type of reading is difficult.

S: Oh, oh, difficult. I usually ask someone for help, but if I am reading for fun. I will stop.

T: How about highlighting on your reading book?

S1: Our teachers asked us to highlight the important information using marks. The key words like but and however, we were taught that we should draw circle on but and however, and one the words like the, on other hand.

T: Highlight what?

S1: Otherwise, conclusion

T: Do you do a lot of summarizing in the classroom?

S1: No, but if my teacher asks me, yes I do

T: Do you summarize the reading for yourself?

S1: No.

S2: no, I summarize it in my head. Oh, this book talk about this and this. this is my thinks in my heads.

T: so, you do prefer to summarize the information in your head, but not to write it down.

T: How about reading out aloud? at home, do you like reading out aloud.

S1: but our teachers tell us not to do because it slows our reading.

S2: our teachers told us that our brain is faster than that.

T: But, at home do you read aloud?

S: not with Korean, but in English, especially when I read difficult reading. difficult, I read out aloud, oh what is this, oh, this means this, oh.

T: Do you find reading aloud helpful?

No, I have to read again silent, because when I finish reading it, I finish and do not understand the reading still have to read it again.

T: Do you do draw a map for your reading?

S: I never do
T: How about taking notes?

S1: After I read, I write journal, but rarely.

T: Do you like to write a reflection journal?

S2: it depends on the topic. if topic is fun, I write it maybe 200 words in 20 minutes. But if the topic is difficult, I would take three to four hours.

T: How about thinking aloud when reading?

S1: yes, I do. I think and talk while I am reading. oh, What is this word? in Korean, my mom told me you speak out aloud.

T: How about you?

S2: yes, when I am alone. Me, not with someone and alone oh, I got it.

T: Do you think it is helpful for you?

S2: I do not think so.

T: If Jennifer asks you to think aloud while reading, you would like it?

No, it is embarrassing. If with Korean, yes, I can, but English

T: Why is it different from English?

S2: Not comfortable, because in English. I think about a lot of things to think about. I want to think about the words, not how to think about how to say it in English.

My interview with a teacher

Me: How do you define metacognition?

T: For me, metacognition is the way that students or anyone thinks about their thinking process.

Me: Is there a difference between cognition and metacognition?

T: Cognition the way I understand it is understanding and metacognition is thinking about understanding.

Me: What kind of reading strategies did you notice your students use while reading?
T: On their own, they will mark words or the ideas that are not sure of what it is and go back and look them up. They write the translation of some words that they are not understanding the meaning in English. if there is post-They will read the questions of the test, before the test, and looking at the pictures and title to help them. They will read the questions first, if they have text, so they aware of what their reading.

Me: Have you noticed some of your students re-reading texts?

T: Oh, yes. definitely. Going back of they are understanding or in class, they will read for themselves and then re-read it again so there is a deep understand. i ask them not to look for words for the first time.
In my class, we do build routine. I asked to highlight the main ideas. They always purpose for reading.

Me: Do you usually ask them to read the text or it is up to them?

T: I asked them to increase their understanding. I might ask them not to look up for words for the first time.

Me: Do you think that your students are metacognitively aware of their reading strategies?

T: I think students by the end of the program they definitely are because each class build on it. so, I teach law level so we teach basic skills. Each class will be learning new strategies, but I think they will be aware by the end of the program they will be aware of how to be successful learner.
There will be different strategies throughout the levels because reading help to increase reading. I asked them to not look up at words for the first time. I think by the end of the program become aware of each reading strategies

Me: At what level, do you think explicit reading teaching should be?

T: I think it is important at every level. even beginning level, they do not read a lot, I try to include some reading strategies such as looking at pictures and the title, pre-teach words that is important. So, there is going to be different strategies throughout the level, but it is important to teach not matter what level are because reading lead to improve grammar and other skills.

Me: How do you increase students’ awareness of their reading strategies?

T: In my classroom, we have like built routine, so almost every time we do reading activity, we do some sort of pre-reading activity. Ok, we will talk about, ok while you read the text, think about the main ideas and highlight the main ideas for each paragraph. We encourage them to do reading activity. We never use a text and we do not use it, so we always do post- reading. Things, such as like today we worked on summarizing. They always purpose for reading, it is not reading to read. We want to teach them that there is always way to understand it better.
Me: Which one do you think is more important pre-reading, during reading or post reading activities?

T: I think that there is one more important than the other. I think it build a complete picture, if you are missing something and it is not the best they can understand it, but for the pre-reading it depends on the level of the text, if it is difficult, we do teach the words first and if it is not difficult, we do some activation, activate their knowledge to read. I try to activate some awareness, so it depends on the text and the purpose.

Me: Do you ask them to observe their thinking while they read?

T: Not explicitly, I mean today, we were going to summarize, I asked them as they read to highlight the ideas that stood for as important the purpose if you were going to retell the story for someone. What they need to remember? so I asked them to notice thing they need to remember such as names and places. Then they will do mind map after and then they have this importation highlighted, so they find it easier. I do not know about asking them to observe while reading, but at the end of the activity, ask them what you think about thin reading, show me from 0 to 10. do you think is rely easy or difficult, so I asking them how they felt about the reading.
Appendix B

Student Work

Level:
What did you do to understand this passage?

What kind of reading strategies did you use to understand?

What was challenging for you in this reading?

Write a short summary for this reading?

What would do for next time?
Appendix C: Students’ survey

<table>
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<tr>
<th>Metacognitive awareness</th>
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| 1. You are invited to take part in a research study “Metacognitive awareness in reading”. The purpose of this research is to identify the types of the reading strategies and reading difficulties among English language learners. If you agree to participate in this study, you will be asked to participate in short on-line survey, which should take no longer than 15 minutes. In the event of any publication or presentation resulting from the research, no personally identifiable information will be shared.

If you have any questions about this research, please contact jdaish@zagmail.gonzega.edu

1. If you agree to take part in this survey, please choose “YES.” If you prefer not to participate, choose “No”
   - YES
   - No

2. Where are you from?
   - Other (please specify)

3. What is your first language?
   - Other (please specify)

4. Are you male or female?
   - male
   - female

5. How old are you?
   - 18-20
   - 20-30
   - 30-40
   - 40-60
   - more than 50
6. How long have you been learning English?
- less than 1 year
- 1-5 years
- 5-10 years
- 10-15 years
- 15-20 years
- more than 20 years
Other (please specify)

7. Which English level are you in?
- Very beginner
- Beginner 101/102
- Intermediate 103/104
- High-intermediate 105/106
- Advanced 107/108
- Undergraduate
- Graduate
- Other
Other (please specify)

8. Direction: Show how often you use the strategy when reading, by checking the appropriate box. It is important to answer in terms of how well each statement describes you, NOT in terms of what you think you should do, or what other people do. THIS IS NOT A TEST. There are no right or wrong responses to these statements. Not everyone needs the same kind of strategies.

<table>
<thead>
<tr>
<th>I think about what I know to help me understand what I read.</th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>I preview the text to see what it is about before reading it.</th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>I think about whether the content of the text fits my reading purpose.</th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>I skim the text first by noting characteristics like length/organization.</th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>I decide what to read closely and what to ignore.</th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>I use tables, figures, and pictures in the text to increase my understanding.</th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>Never</td>
<td>Rarely</td>
<td>Sometimes</td>
<td>Often</td>
<td>Always</td>
</tr>
<tr>
<td>--------------------------</td>
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<td>-------</td>
<td>--------</td>
</tr>
<tr>
<td>I use typographical aids</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I use bold face and italics to identify key information.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I critically analyze and evaluate the information presented in the text.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I check my understanding when I come across conflicting information.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I try to guess what the material is about when I read.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I check the difficulty of the text before I read.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I read slowly but carefully to be sure I understand what I am reading.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I stop from time to time to think about what I am reading.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>When the text becomes difficult, I pay closer attention to what I am reading.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I try to make a picture in my mind about what the text is saying.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>When the text becomes difficult, I re-read to increase my understanding.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I use the organizational structure of the text to help me learn.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>When the text becomes difficult, I read aloud to help me understand what I read.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I adjust my reading speed according to what I am reading.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I try to guess the meaning of unknown words or phrases.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I summarize what I read to reflect on important information in the text.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I discuss what I read with other classmates to check my understanding.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I underline or circle information in the text to help me remember it.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
I use reference materials such as dictionaries to understand what I read.
I go back and forth in the text to find relationships among ideas in it.
I take notes while I am reading.
I think aloud while I am reading.
I paraphrase what I read to help me understand it.
I draw a semantic map after I finish reading the text to help me understand what I read.
I have a purpose in my mind when I read.

9. What was your most recent IELTS/TOFEL score on Reading Skill?
   - Less than 4
   - 4
   - 5
   - 6
   - 7
   - More than 7
   - I have not taken.
   - Other

   Other (please specify)

10. How much do you read in English?
   - Daily
   - 3-4 times per week
   - 1-2 times per week
   - Not often
   - Never

11. Rate your reading skill.
   - Excellent
   - Good
   - Average
   - Very poor
12. Do you consider yourself a good reader? Why or why not?

13. Choose one or two options that represent your view about reading. *Give reasons for your choice.*
- I like reading in English.
- I feel anxious when I read.
- I get frustrated to the point of giving up and I do not like reading anymore.
- I prefer to get information online.
- Sometimes I like it but sometimes I don’t.

Reasons

14. Show your reading difficulties by checking the appropriate box(es).
- I have no particular interest in reading.
- I lack the background knowledge to understand the content of the texts.
- I find it hard to concentrate while reading.
- The texts contain many new words and I have to use a dictionary from time to time.
- The grammar structures in the texts are difficult for me to understand.
- Type of text sometimes is difficult.

Other (please specify)

15. If you see some unfamiliar words while you are reading and you do not know their meanings, do you:
- Break words into parts
- Guess words from context clues
- Open your dictionary to check them
- Continue reading without being concerned about them
- Other

Other (please specify)
<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
</tr>
</thead>
</table>
| 16. How many times do you have to read an academic text to understand   | ○ Once  
○ Twice  
○ Three times  
○ More than 3 times  
○ Other  

Other (please specify)                                                                                                                                                                      |
| the meaning in English?                                                 |                                                                                                                                 |
| 17. What do you do when you have difficulty reading an academic passage?|                                                                                                                                 |
| 18. Does your teacher teach some reading strategies that help to        | ○ yes  
○ no  

examples                                                                                                                                                                                   |
| increase your reading comprehension? if it is yes, give me some         |                                                                                                                                 |
| examples.                                                              |                                                                                                                                 |
| 19. Which kind of reading do you enjoy?                                | ○ Short stories  
○ Descriptions  
○ Dialogues  
○ Poetry  
○ Non-fiction  
○ Letters  
○ Research articles  
○ Internet texts  
○ Textbook texts  
○ Other  

Other                                                                                                                                                                                   |
| 20. What kind of reading is most difficult?                           |                                                                                                                                 |
21. Why do you think the above is difficult?

22. What can teacher do to make reading more easier and enjoyable for you?

23. Are you willing to be interviewed?
   - Yes
   - No

   If yes, please provide your email
Appendix D: Teachers’ survey

You are invited to take part in a research study. The purpose of this study is to inform the researcher’s own teaching and improve her methodology.

If you agree to participate in this study, you will be asked to participate in a short on-line survey, which should take no longer than 15 minutes.

In the event of any publication or presentation resulting from the research, no personally identifiable information will be shared.

If you have any questions about this research, please contact jdaish@zagmail.gonzaga.edu

To participate, you must be 18 years of age or older. If you agree to take part in the survey, please click the “Yes” button.

1. Do you agree to participate in this study?
   - Yes
   - No

2. How long have you been teaching ESL/EFL?
   - 1-2 years
   - 3-5 years
   - 6-10 years
   - 11-15 years
   - 16-20 years
   - More than 20 years

3. What subject do you usually teach?
   - Writing
   - Reading
   - Listening and speaking
   - Grammar
   - Integrated skills
   - All of the above
   - Other (please specify)

4. Do you teach English as a foreign language (EFL) or as a second language (ESL)?
   - EFL
   - ESL
5. How important do you think the following aspects are for ESL/EFL reading class? (Althewini, 2016)

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Not important</th>
<th>Somewhat important</th>
<th>Neutral</th>
<th>Important</th>
<th>Very important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assisting students with a direct explanation of a text structure (i.e. explicitly teaching about a narrative, expository, or descriptive structure)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Often doing pre-reading activities or discussions with students about a text (i.e. by looking at portions of the text such as pictures, graphics, titles, or headings)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Almost always teaching students to guess the meaning of unknown words from the context</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Often asking students to answer inferential questions about a text (i.e. where the meaning is implied rather than explicitly stated in the text)</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Asking students to draw a semantic map after they finish reading the text to help them understand what they read</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teaching students to visualize characters, settings, or events in a text</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teaching students to evaluate their own understanding of the text by writing a summary</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teaching students to go back and forth in the text to find relationships among ideas</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teaching students to define their own goal for reading</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
6. Do you usually ask your students to observe their comprehension while reading? If it is yes, please provide some examples.

- Yes
- No

Examples

---

7. At what level do you think explicit reading instruction is important?

- Very beginner
- Beginner
- Intermediate
- High intermediate
- Advanced
- College
- Other (please specify)

---

8. I believe that a good reader...

- Gets the meaning from a text by working out how to read words accurately
- Interprets a text to create or construct his/her own meaning
- Consciously selects strategies (mental activities that readers use to comprehend a text) and uses them to understand the meaning of a text
- Relates ideas in a text to his/her knowledge
- Always monitors and regulates his/her reading comprehension
- Moves through a text with a specific purpose in mind

---

9. How do you define metacognition? Is there a difference between cognitive and metacognitive strategies in reading?
10. Do you typically explicitly teach reading strategies in your class?
- Yes
- No

11. Please provide some examples of how you typically teach reading strategies in your class?

12. What kind of reading difficulties do you think your students encounter in reading?
- Lack of interest in reading
- Lack of background knowledge to understand the content of the texts
- Finds it hard to concentrate when reading
- The texts contain many new words and students have to use a dictionary from time to time
- The grammar structure in the texts is difficult for them to understand
- The structure of the text sometimes is difficult to understand
- All of them
- Other

Other (please specify)

13. I believe that types of English reading material in English, ESL/EFL students should be exposed to for classroom study includes

- Short stories
- Descriptions
- Dialogues
- Poetry
- Non-fiction
- Letters
- Research articles
- Internet texts
- Textbook texts
- All of them

Other (please specify)

14. How do you motivate students to be independent readers inside and outside of the classroom?
15. Do you think raising students’ awareness of some reading strategies will help them to overcome their reading difficulties? Why or why not?
- Yes
- No
- It depends

Reasons

16. What in class activity do you think helps to increase students’ awareness of their reading strategies?

17. How often do you see your students?

<table>
<thead>
<tr>
<th>Activity / Strategy</th>
<th>Never</th>
<th>Rarely</th>
<th>Neutral</th>
<th>Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>decide what to they should read closely and what they should ignore</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>critically analyze and evaluate the information presented in the text</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>check the difficulty of the text before they read</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>stop from time to time to think about what they are reading</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>re-read the text to increase their understanding</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>use the organizational structure of the text to help them learn</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>when text becomes difficult, they read aloud to help them understand what they read</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>adjust their reading speed according to what they are reading</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>try to guess the meaning of unknown words or phrases</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>underline or circle information in the text to help them remember it</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>use reference materials such as dictionaries to understand what they read</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
18. What are the most important reading strategies that should be taught in every ESL/EFL classroom?

19. Are you willing to be interviewed?
   - Yes
   - No

If yes, please provide your email.