INVESTIGATING THE EFFECTS OF GLOBAL READING STRATEGY TRAINING ON L2 READING COMPREHENSION THROUGH EYE TRACKING

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JÜRİ VE ENSTİTÜ ONAYI

Özlem UTKU'nun "Investigating the Effects of Global Reading Strategy Training on L2 Reading Comprehension through Eye Tracking" başlıklı tezi 28.05.2019 tarihinde, aşağıda belirtilen jüri üyeleri tarafından Anadolu Üniversitesi Lisansüstü Eğitim-Öğretim ve Sınav Yönetmeliğinin ilgili maddeleri uyarınca Yabancı Diller Eğitimi Anabilim Dalı İngilizce Öğretmenliği Programında, Yüksek Lisans tezi olarak kabul edilmiştir.

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ÖZET

GLOBAL OKUMA STRATEJİ EĞİTİMİNİN İKİNCİ DİLDE OKUDUĞUNU ANLAMAYA ETKİLERİNİN GÖZ İZLEME YOLUYLA İNCELENMESİ

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Okuma becerisi, hem anadil edinimi hem de ikinci dil öğrenme süreçlerinde önemli bir role sahiptir. İkinci dilde okumanın önemli rolü sebebiyle, bu husus birçok araştırmacının ilgisini çekmiştir ve okumanın çeşitli yönleri, ikinci dilde okuma süreçlerini çeşitli açılardan keşfetmek amacıyla incelenmiştir. Okuma stratejileri bu araştırma alanlarından biridir. Bu çalışmada, bir strateji eğitiminin, İngilizceyi yabancı dil olarak öğrenen Türk öğrencilerin, genel okuma becerilerine yönelik metabilişsel farkındalıkları ve bu stratejileri kullanımları ile okuduğunu anlama becerileri üzerindeki etkisinin incelenmesi amaçlanmıştır. Türkiye'deki bir devlet üniversitesinde İngiliz Dili Eğitimi Ana Bilim Dalı'na kayıtlı 23 birinci sınıf öğrencisi, bu çalışmaya katılmış ve veriler dört veri toplama aracıyla hem niteliksel hem de niceliksel olarak toplanmıştır. Sonuçlar, Yabancı dil olarak İngilizce bağlamlarında karşılıklı öğretimin kullanımı açısından cesaret vericidir. Katılımcıların okuduğunu anlama puanlarının istatistiksel olarak anlamlı derecede arttığı tespit edilmiştir. Benzer şekilde, MARSI bulguları, katılımcıların genel okuma stratejilerine yönelik algılanan kullanımlarının ve metabilişsel farkındalıklarının önemli ölçüde daha iyi olduğunu göstermiştir. Sesli düşünme protokollerin bulguları ile birlikte göz izleme sonuçları, katılımcıların genel okuma stratejilerini istatistiksel olarak anlamlı derecede daha sık kullandıklarını ortaya koymuştur. Buradan hareketle, katılımcıların okuduğunu anlama becerilerini ve genel okuma stratejileri kullanmalarını arttırmanın yanı sıra bu stratejilere ilişkin farkındalıklarını desteklemede de strateji eğitiminin faydalı olduğu sonucuna varılabilir.

Anahtar Sözcükler: Karşılıklı öğretim, Genel okuma stratejileri, Göz izleme, İkinci dilde okuma, Yabancı dil olarak İngilizce.

ABSTRACT

INVESTIGATING THE EFFECTS OF GLOBAL READING STRATEGY TRAINING ON L2 READING COMPREHENSION THROUGH EYE TRACKING

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The reading skill has a crucial role both in the acquisition of mother tongue and L2 learning processes. Because of the important role of reading in L2, it has been of interest to a number of researchers and various aspects of reading have been investigated to explore L2 reading processes from a variety of perspectives. Reading strategies are one of these research interests. In the present study, it was aimed at investigating the impact of a strategy training on Turkish EFL learners' metacognitive awareness and use of global reading strategies over and above reading comprehension skills. 23 freshmen, enrolled in the Department of ELT at a state university in Turkey, participated in the current study, and the data were collected both qualitatively and quantitatively, with four data collection instruments. The results are encouraging for the use of reciprocal teaching in EFL contexts. It was found that reading comprehension scores of the participants improved to a statistically significant extent. Similarly, MARSI findings indicated that the perceived use and metacognitive awareness of the participants regarding global reading strategies were significantly better. Eye tracking results, hand in hand with the think-aloud protocols' findings, revealed that the participants utilized global reading strategies more frequently to a statistically significant degree. Thus, it can be concluded that strategy training was useful for the participants to improve their reading comprehension skills and the use of global reading strategies as well as to foster their awareness in respect of these strategies.

Keywords: Reciprocal teaching, Global reading strategies, Eye tracking, Reading in L2, English as a foreign language.

/06/2019

ETİK İLKE VE KURALLARA UYGUNLUK BEYANNAMESİ

Bu tezin bana ait, özgün bir çalışma olduğunu; çalışmamın hazırlık, veri toplama, analiz ve bilgilerin sunumu olmak üzere tüm aşamalarında bilimsel etik ilke ve kurallara uygun davrandığımı; bu çalışma kapsamında elde edilen tüm veri ve bilgiler için kaynak gösterdiğimi ve bu kaynaklara kaynakçada yer verdiğimi; bu çalışmanın Anadolu Üniversitesi tarafından kullanılan "bilimsel intihal tespit programı"yla tarandığını ve hiçbir şekilde "intihal içermediğini" beyan ederim. Herhangi bir zamanda, çalışmamla ilgili yaptığım bu beyana aykırı bir durumun saptanması durumunda, ortaya çıkacak tüm ahlaki ve hukuki sonuçları kabul ettiğimi bildiririm.

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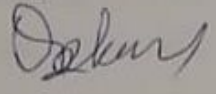

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LIST OF ABBREVIATIONS

EFL	: English as a Foreign Language
ET	: Eye Tracking
GLOB	: Global Reading Strategies
L2	: Second/Foreign Language
RCTs	: Reading Comprehension Tests
RT	: Reciprocal Teaching
TAPs	: Think-Aloud Protocols

1. INTRODUCTION

There is a famous quote by Gustave Flaubert (1857): “Do not read, as children do, to amuse yourself, or like the ambitious, for the purpose of instruction. No, read in order to live.” These words were inked out while Flaubert wrote a letter to Mademoiselle Leroyer de Chantepie (Sartre, 1989, p. 255). Apparently, the role of reading in people’s lives was emphasized through this suggestion. Although nowadays it is not common to see individuals who are very keen on reading due to today’s technology world, the impact and importance of reading cannot be underestimated. Krashen (2004, p. 23) states that individuals do not read and write well enough though they are able to read and write, so in fact “there is not a literacy crisis”. Accordingly, he focuses attention on the power of reading to improve spelling, grammar, writing and vocabulary, and he points out that reading is also crucial to develop better thinkers. In addition to benefits of reading in mother tongue, gains one can get when reading in a foreign or a second language are of interest to L2 teachers and learners, too. Primary reasons why reading receives a special focus can be stated as follows: learners may want to read “for getting information, for study goals and career or only for pleasure” (Richards & Renandya, 2002, p. 273).

Similarly, Harmer (2001, p. 68) emphasizes role of the teacher in leading learners to read English texts and proposes “four main motives” to encourage learners to read in English. Firstly, the importance of reading in acquiring language is underlined. Because learners are able to be exposed to L2 while reading books, passages or even booklets, making the reading process more captivating will affect L2 learning process positively. Besides the possible positive effect of reading on language acquisition, it is pointed out by Harmer (2001, p. 68) that teachers should introduce and make use of English texts since they basically allow learners to practice the reading skill and study language. Moreover, as the final possible outcome of using English texts in class, their being models for future writing is stressed.

Grabe (2002, p. 277) also notes that teachers should help learners establish fluency in reading by encouraging them to read extensively, should model reading skills and strategies clearly, and facilitate student performances in comprehending texts. In addition, it is pointed out that teachers ought to provide students with many opportunities for practice. These aforementioned suggestions are, in fact, the characteristics of teachers proposed in the comprehension-enhancing approaches, and

reciprocal teaching, cooperative learning and reading recovery are the most famous ones among these approaches. In reciprocal teaching, four comprehension strategies, namely predicting, questioning, clarifying and summarizing, are utilized to read a text effectively (Palincsar & Brown, 1984, p. 120). The teacher first models the sequence of the activity, then guides learners to be active leaders in making use of four comprehension strategies while comprehending the text.

The four strategies included in reciprocal teaching method are also described as global and support reading strategies by Mokhtari and Reichard (2002). That is to say, in the study of Mokhtari and Reichard (2002), reading strategies are divided into three main categories: global reading strategies, problem-solving strategies and support reading strategies. Specifically, global reading strategies are those facilitating one's general understanding of the text and fostering one's reading comprehension and monitoring. For this reason, global reading strategies as well as the comprehension strategies emphasized in reciprocal teaching method are of great value in improving strategic reading and being proficient readers in L2.

1.1. Background to the Study

Ellis (2003, p. 76) states that language aptitude and motivation are of general factors which have an effect on the rate and level of L2 achievement, and poses a question, "How does the influence of language aptitude and motivation operate?" The question is answered by proposing a possibility: they might affect how and how often learners use learning strategies. On the other hand, in a more specific manner, Oxford (2002, p. 124) throws light on learning strategies by giving fascinating examples as follows:

- "Trang watches TV soap operas from the United States, guessing the meaning of new expressions and predicting what will come next."
- "Feng-ji memorizes pages of words from an English dictionary and breaks the words into their components."
- "Masha tapes English labels to all the objects in her dorm room."
- "Marie-France uses a green highlighting pen to mark the main points in the notes she takes in class, and later she outlines the notes and writes a summary."

- "Luis regularly reads *Newsweek*, *the New York Times*, *Parade*, and even American comic books."

Considering the ways of learners in using learning strategies, it can be concluded that one can find a variety of ways to enhance his or her own learning, and making use of such strategies can be effective in increasing learner autonomy. However, unless learners are aware of what learning strategies are and how they can get benefit of them, developing and sustaining autonomy might be highly challenging. Therefore, strategy instruction has been suggested with the aims of increasing learners' metacognitive awareness (Carrell, 1989), promoting learner autonomy as well as learners' self-esteem and self-efficacy (Hong-Nam & Leavell, 2011) and specifically improving learners' reading comprehension skills (Alfassi, 2004; Dole, Brown & Trathen, 1996; Spörer, Brunstein & Kieschke, 2009).

A method allowing learners to actively participate in the process of comprehending a reading material, reciprocal teaching (Palinscar & Brown, 1984) helps learners to internalise reading strategies. Predicting, questioning, summarizing and clarifying are four components of reciprocal teaching and they also constitute global reading strategies, which are preferred to utilize for global analysis of a text (Mokthari & Reichard, 2002, p. 252). A variety of studies have been conducted to investigate whether strategy instruction, given through reciprocal teaching, reveals encouraging results and it is concluded that reciprocal teaching is useful for improvement of reading comprehension skills and use of reading strategies (Alfassi, 1998; Lysynchuk, Pressley & Vye, 1990; Yang, 2010). Furthermore, regarding global reading strategies, recent studies have been carried out to identify global reading strategies (Bishop, Reyes & Pflaum, 2006; Mokhtari & Reichard, 2002; Mokhtari & Sheorey, 2002), evaluate use of global reading strategies (Atkins & Prichard, 2016) and examine how global reading strategies influence reading comprehension (Ilustre, 2011). Different from the studies cited before, in the study of Atkins and Prichard (2016) a recent tool has been utilized. Besides surveys, researchers used eye tracking technology as well, which enabled them to investigate how participants used previewing strategy, one of the global reading strategies, in an objective manner. Participants' eye movements are recorded utilizing eye tracking technology and it could be possible to analyse whether there was a pattern between the findings of the survey and the participants' eye movements – that is to say, their actual use of previewing strategy. As a result, it is emphasized that the eye tracking

findings did not correlate with the results of the survey and further research is needed to investigate so as to find out the effect of a strategy instruction on use of reading strategies.

In conclusion, it can be said that guiding learners to make them efficient reading strategy users can make them better comprehenders and readers, which can be achieved through strategy training. Moreover, if participants are informed about the possible benefits of utilizing reading strategies, learner autonomy, self-esteem and self-efficacy can be supported, too. With regard to carrying out a study on strategy instruction, it can be noted that in addition to surveys and comprehension tests, an innovative tool can make it feasible to evaluate the efficacy of strategy training in a more unbiased way.

1.2. Statement of the Problem

Besides the studies examining L2 reading (Carrell & Eistherhold, 1983; Grabe, 1991), reading instruction (Bamford & Day, 1998; Carrell, 1985) and the relationship between L1 and L2 reading (Brisbois, 1995; Lee & Schallert, 1997; Yamashita, 2002), various recent studies have been conducted on teaching reading strategies to L2 learners (Dreyer & Nel, 2003; Song, 1998; Zhang & Wu, 2009). It is noted that effective use of strategies affects L2 reading process positively. More precisely, L2 reading process will become more profitable and engaging when learners get information about the strategies and how they can benefit from them while reading.

Different from the studies examining the effect of strategy training on L2 reading, Zhang's (2001) study sheds light on Chinese EFL learners' metacognitive knowledge of reading strategies in an acquisition-poor environment. As a conclusion of this study, it is suggested that high-proficient learners are more aware of using strategies and they are able to verbalise what they have understood from reading strategies better whereas low-proficient learners can also get benefit of reading strategies and become skilled readers with teachers' help and guidance.

Regarding the studies carried out in Turkish EFL setting, Salatacı and Akyel's (2002) study can be regarded as the preliminary empirical study conducted to investigate the effect of strategy training on reading in both Turkish and English. 5 data collection instruments were administered and the results revealed highly valuable findings and implications for strategy instruction. However, in their research, possible effects of strategy instruction on both L1 and L2 were detected, so L2 reading process

was not solely examined. Similar to Salatacı and Akyel's (2002) study, Dokur (2017) used reciprocal teaching for instructional purposes in his study but the reading skill was not only investigated although more emphasis was placed on the reading skill itself. To be more precise, the aim of the study was to find out possible effects of reciprocal teaching on young Turkish EFL learners' improving reading skills as well as basic language skills.

The studies seeking the answers of what the possible effects of strategy training are and whether learners are aware of reading strategies and how to use them cannot be underrated. However, only Prichard and Atkins (2016) utilized a recent technology tool to discover if learners use a global reading strategy, namely previewing a text, while reading in L2. In their study, eye tracking technology was used besides traditional data collection tools to clarify if learners' responses to the items in the questionnaire correlated with their actual use of previewing strategy. The results obtained through questionnaires, interviews, think-aloud protocols, observations and pre- and post-tests are highly precious in discovering use of strategies by learners but whether learners truly use reading strategies while reading a text cannot be known as long as the readers are also the researchers. In other words, if the aim is to discover the effects of strategy instruction on reading in L2, learners need investigating simultaneously while reading and by utilizing eye-tracking technology, this aim can be reached.

With these in mind, it can be concluded that a study combining strategy instruction and eye tracking technology may be highly useful for the literature and provide fruitful outcomes because despite its being an innovative recent study, no strategy instruction was implemented in Prichard and Atkins's (2016) study but instead it was aimed to evaluate learners' use of previewing strategy. More precisely, the number of research studies which investigate use of global reading strategies and the efficacy of a training carried out through reciprocal teaching, and utilized eye tracking technology as a data collection instrument is relatively limited.

1.3. Purpose of the Study

In the current study, there are three main concepts, namely global reading strategies, reciprocal teaching and eye tracking technology. Thus, in the light of these concepts, the following three purposes have been determined as the aims of the present study:

- to discover English language teacher candidates' metacognitive awareness and perceived use of reading strategies, specifically global reading strategies,
- to examine the possible effects of strategy training which is carried out by using reciprocal teaching method on improving participants' strategy use, and
- to investigate whether the results obtained through eye tracking are consistent with those of Metacognitive Awareness Reading Strategies Inventory (MARSI) developed by Mokhtari and Reichard (2002), think-aloud protocols and reading comprehension tests.

Considering the implementation process of the eye tracking technology, the number of the participants was determined as 23. And, to fulfil the aims of the study, Metacognitive Awareness Reading Strategies Inventory, think-aloud protocols and reading comprehension tests were utilized besides eye-tracking technology.

In the light of purposes of the study, the following research questions were determined:

1. To what extent do the participants' perceived use and metacognitive awareness of global reading strategies change after strategy instruction?

2. Are there any significant differences among the three reading comprehension scores of the participants?

3. To what extent do the total fixation duration, the number of fixations and revisits on the title, the introductory paragraph and the images as well as the total number of fixations before the linear reading differ before and after the strategy instruction?

More precisely, how does the global reading strategy training affect the participants' use of "previewing text for content", "skimming to note text characteristics", "using context clues", "using text structure", and "using other textual features" strategies?

4. How does the strategy training affect their use of global reading strategies and metacognitive awareness regarding global reading strategies? How is the change in the participants' use of global reading strategies reflected on the think-aloud protocols' findings?

5. What are the relationships among the findings of Metacognitive Awareness of Reading Strategies Inventory, eye tracking implementations, reading comprehension tests, and think-aloud protocols?

1.4. Significance of the Study

Individuals can find numerous motives to read both in L1 and L2. Basically reading allows readers to improve themselves intellectually and more pragmatically, they can also improve their knowledge of vocabulary, grammar and spelling by reading. Moreover, since they are exposed to various literary works, they will be able to notice a variety of writing genres and be skilled writers as well. Considering that reading in L2 has many advantages in being proficient in the target language, it can be noted that learners should use certain reading strategies to make reading process easier and to become more skilled readers. Additionally, teachers' roles in encouraging learners to utilize these reading strategies cannot be underestimated.

Even though strategy instruction in L2 reading has gained great interest in the literature, the number of studies conducted by using reciprocal teaching method and utilizing an innovative technological tool, eye tracking technology is restricted. On the other hand, though it is widely known that eye tracking technology is used in linguistic studies more frequently and there have been a variety of recent linguistic research studies utilizing this innovative instrument (Bax, 2013; Gordon et al., 2006; Holsanova, Rahm & Holmqvist, 2006), the number of studies which have a pedagogical focus and use eye tracking technology is relatively limited. However, evaluating the influence of instruction or a pedagogical implementation can also be examined through eye tracking, which provides opportunities to investigate how the instruction affects the level of L2 achievement.

With the aim of combining a traditional phenomenon with a recent instrument, in the present study global reading strategies are taught within a strategy instruction given through reciprocal teaching and the data are collected with eye tracking technology, think-aloud protocols, reading comprehension tests and a survey. Moreover, this study suggests implications for strategy training and serves as a guide to further research studies by modelling eye tracking methodology.

1.5. Definitions of the Terms Used in the Present Study

Reciprocal teaching is a method proposed first by Palincsar and Brown (1984). Four comprehension strategies are emphasized in this method: predicting, questioning, clarifying and summarizing. The teacher models the sequence and the process, then encourages learners to be the leaders guiding the process. Each student takes a role in

turn and accordingly, makes predictions on the text to be read, asks questions to comprehend the text better and more efficiently, clarifies the unclear points or summarizes the text.

Metacognitive awareness of reading strategies is defined as one's being aware of his or her own cognition about reading as well as self-control mechanisms utilized when reading and comprehending a text, and while monitoring and regulating text comprehension (Mokhtari & Reichard, 2002, p. 249).

Global reading strategies are the strategies determined clearly in Mokhtari and Reichard's (2002) study. They developed an inventory to evaluate readers' metacognitive awareness of reading strategies. The inventory consists of three main types of reading strategies: global reading strategies, problem-solving strategies and support reading strategies. However, in the current study, use of global reading strategies, which can be listed as follows, are examined specifically: setting purpose for reading, activating prior knowledge, checking whether text content fits purpose, predicting what text is about, confirming predictions, previewing text for content, skimming to note text characteristics, making decisions in relation to what to read closely, using context clues, using text structure, and using other textual features to enhance reading comprehension.

Eye tracking is a technology that enables researchers to examine eye movements of the participants by using a device named as eye tracker. With recent developments in technology and important advancements in eye tracking, now it is quite possible to utilize this technology in the field of language teaching, too.

1.6. Organization of the Chapters

There are 5 chapters in the present study. In the first chapter, introductory information about the study is given within the following subtitles: background to the study, statement of the problem, purpose of the study, and significance of the study. Additionally, key terms of the study are explained briefly.

Chapter 2 includes theoretical information about the main concepts and review of the related literature. First, reciprocal teaching, global reading strategies and eye tracking methodology are explained respectively. Then, empirical studies on the efficacy of strategy instruction given through reciprocal teaching and use of global reading strategies, and the studies utilizing eye tracking technology are presented.

The third chapter is the methodology chapter, within which participants of the present study, data collection instruments and procedure, and data analysis are presented.

In Chapter 4, results of the current study are presented and discussed.

Finally, Chapter 5 gives a summary of the study. Moreover, the conclusions and implications for teaching are presented and discussed, and certain suggestions for further research are presented in the fifth chapter.

2. REVIEW OF LITERATURE

2.1. Introduction

In this chapter, reciprocal teaching, global reading strategies and eye tracking methodology are examined in detail to present theoretical frameworks of these concepts in a comprehensible manner. In addition, the following are the relevant subheadings presented and discussed in the given order:

- Empirical studies on the efficacy of strategy instruction conducted through reciprocal teaching,
- Research studies on the use of global reading strategies and their influence on reading in L2, and
- The studies both utilizing eye tracking technology and focusing on reading in L2.

2.2. Review of Theoretical Background

2.2.1. Theoretical framework of reciprocal teaching

Reciprocal teaching is first proposed by Palincsar and Brown (1984, p. 124) and by their definition it is "a procedure during which teacher and learners take turns leading a dialogue concerning sections of a text". In reciprocal teaching, Palincsar and Brown (1984, p. 121) emphasized the use of four strategies: summarizing (self-review), questioning, clarifying and predicting because they can function as both *comprehension-fostering* and *comprehension-monitoring* activities if they are used properly. Moreover, it is suggested that strategy instruction through reciprocal teaching results in successful outcomes, which can be attributed to "the particular strategies trained, to the reciprocal teaching procedure, or to a combination of both" (Palincsar & Brown, 1984, p. 168).

However, despite its revealing encouraging results and supportive implications for teaching, the study of Palincsar and Brown (1984) was conducted in L1 setting so in fact they developed reciprocal teaching method for learners having difficulty in reading in their mother tongue. Alternatively, as Salatacı and Akyel (2002, p. 3) also stated, first Cotterall (1990, 1993) put forward a practical framework to employ reciprocal teaching in ESL context and Song (1998) was the first researcher who used reciprocal teaching in EFL setting for strategy training. Reciprocal teaching was found to be beneficial to improve learners' L2 reading comprehension (Cotterall, 1990; Salatacı & Akyel, 2002;

Song, 1998, Spörer, Brunstein, & Kieschke, 2009). And more specifically, it is suggested by Song (1998, p. 45) that less skilled readers can benefit more from reciprocal teaching than more skilled readers and strategy instruction may result in better profits in learners' improving general understanding of the texts and their ability of making logical inferences based on the content of the passages. Considering these conclusions, it can be stated that "reciprocal teaching is a well-suited method to assist L2 learners reading in L2" (Cotterall, 1990, p. 68).

In the light of the primary framework proposed by Palincsar and Brown (1984), the procedures held in the studies of Cotterall (1990, 1993), Dokur (2017), Salatacı and Akyel (2002), Song (1998), Spörer et al. (2009), reciprocal teaching procedure can be stated as follows:

1. The teacher gives the reading text to each student.

2. The teacher and students solely look at the title of the text and make predictions on the content of the text. At this stage, the teacher encourages students to remember what they know about the possible content of the text, that is, students' background knowledge is tried to be activated.

3. Students read the first paragraph of the text silently.

4. The teacher models how to ask questions about incomprehensible points in the paragraph, how to clarify blurred points, how to summarise the paragraph and state the main idea of the paragraph, and how to predict the content of the following paragraph respectively. The teacher can repeat modelling at the following stages because it may take time to make students feel confident about taking roles, so the teacher should be patient and pay regard to wait time.

5. A volunteer student is asked to be the leader who will guide the same procedure: firstly, the leader lets students read the paragraph silently and then asks a leading question about incomprehensible points in the paragraph and encourages students to ask more questions.

6. The leader seeks or provides clarification for unclear points (e.g. unknown words, problematic grammar structures that inconvenience students' understanding).

7. The leader states the main idea of the paragraph and summarises the content of the paragraph.

8. Lastly, the leader makes predictions about the content of the following paragraph and asks a volunteer student to be the next leader.

It should be noted that although the leader takes the role of guiding the procedure, the other students should also be involved in the stages with the encouragement of the leader, so it should take place in a natural dialogue environment. The leader should try to receive others' feedback to lead an interactive reciprocal procedure. For this reason, more self-confident and skilled readers can be the leaders in the initial stages. Especially when the importance of Vygotsky's (1978) theory, scaffolding is taken into account, what is suggested can be a preferable way of assisting less proficient learners with low self-esteem.

2.2.1.1. Summarizing

Summarizing can be regarded as the ultimate outcome of reciprocal teaching process because learners are expected to make a summary of what they comprehend after they put forward predictions on the content of a text, pose questions related to the incomprehensible parts and clarify them. Moreover, to summarize the information, learners need to analyse the text globally (Cotterall, 1990, p. 56), and to verbalize what they understand, they are supposed to put main ideas in their own words, which means first recognizing and rewording them by paraphrasing. Therefore, summarizing can be described as a strategy that enfolds the other three strategies.

2.2.1.2. Questioning

Putting questions related to the reading material provides opportunities for learners to take charge of comprehension process – that is to say, since they themselves generate questions, they can become much more involved than they do when answering questions of the teacher (Palincsar & Brown, 1986, p. 772). Therefore, encouraging learners to discover the points they do not understand well enough to comprehend the text and to pose questions about these points will make them more efficient readers and better comprehenders. Additionally, by doing so, learners can evaluate themselves, which facilitates self-testing (Meyer, 2010, pp. 43-46).

2.2.1.3. Clarifying

Once learners generate questions about what they do not understand at all, they need to find clear explanations to comprehend the text and to fulfil the tasks meaningfully. Clarification process can be led by the leader. However, the point is that

all the learners should get involved in the process because there may be some learners who indeed do not understand well. Moreover, they have certain difficulties in comprehending the text and believe that "the purpose of reading is saying the words correctly" (Palincsar & Brown, 1986, p. 772), and bringing them on to read may be possible by making them involved in the process. Learners should be encouraged to use contextual clues, tables, figures, pictures and typographical aids like bold face and italics in order to both increase understanding and identify key information (Mokhtari & Reichard, 2004, p. 393).

2.2.1.4. Predicting

The underlying aim of directing learners to make predictions about the text can be to activate learners' background knowledge about the topic of the text. Once a learner has brought to his or her mind an awareness of what is already known about a subject matter, the reading text can be comprehended more consciously, which enables him or her to focus on problematic points more easily. Due to the fact that learners' schemata can be activated suggesting predictions on a specific topic, the reading process becomes more meaningful and purposeful as well. Furthermore, making predictions enables learners to "draw certain inferences related to the given texts and make use of them while reading" (Oczkus, 2013, p. 35).

2.2.2. Theoretical framework of global reading strategies

Koda (2005, pp. 221-227) defines reading as "a purposeful activity necessitating appropriate modes of processing' and 'a complex, multifaceted pursuit requiring the continuous deployment and integration of multiple operations". Accordingly, Nuttall (1996, pp. 42-60) attempts to clarify reading process by indicating three groups of processes. The first group includes decoding, deciphering and identifying, which are necessary to recognize what is written. The second group, i.e. articulating, speaking and pronouncing brings attention to the opportunities that reading provides. A reading lesson can be a good source of information regarding facilitating pronunciation and improving speaking skills due to the input provided by the texts in L2. The last group basically comprises understanding, responding and meaning, which are associated with the reasons for reading.

According to Grabe (2009, pp. 5-10), individuals read various types of texts for a number of reasons, e.g. reading forms in order to fill them out, reading text messages or e-mails to get in touch with others, reading novels or magazines for pleasure or reading articles for the purpose of getting information on a given topic. Furthermore, Grabe (2009, pp. 1-3) emphasizes the benefits of and the reasons for reading in L2 by directing attention to the fact that around the world individuals do not read in only their mother tongue, but instead there are many people who are able to read in more than one language.

Thanks to the recent research studies conducted on L2 reading (Amer, Al Barwani, & Ibrahim, 2010; Aydın & Kuru Gönen, 2012; Kara, 2018; Yaylı, 2010), reading instruction in EFL environments has improved considerably, too. Especially, the studies conducted on strategy instruction to assist learners in being accomplished readers have contributed a lot to the field of L2 reading (Barnett, 1988; Block, 1986; Carrell, 1989; Jafari & Shokrpour, 2012; Kara, 2015; Kuru Gönen, 2015). Accomplished readers are "the learners continuously adjusting their reading behaviours to accommodate text difficulty, task demands and other contextual variables" and by doing so, they in fact minimize comprehension problems because of their monitoring the reading process cautiously (Koda, 2005, p. 204). Considering that fluent readers' most common purpose for reading is to read for general comprehension (Grabe, 2009, p. 10), the importance of developing strategic reading to facilitate reading comprehension can be explained clearly. To be more precise, as it was noted by Koda (2005, p. 221), "strategic reading is an essential competence for anyone reading for the purposes of thinking and learning' and learners' being aware of their own capabilities in terms of reading and comprehending a text ensures successful comprehension." Similarly, Garner (1987, p. 50) argues that reading strategies, which are "generally deliberate and planful activities undertaken by active learners, many times to remedy perceived cognitive failure" by her own definition, have facilitative effects on reading comprehension and they can be taught as well.

Both by Mokhtari and Reichard (2002) and Mokhtari and Sheorey (2002), reading strategies are classified into three categories, i.e. global reading strategies, which is a similar categorization to that of Carrell (1989), problem solving strategies and support reading strategies. Global reading strategies are the ones that necessitate general understanding of a text and enhance reading comprehension whereas the other two

categories focus on more specific strategies utilized to remove comprehension deficiencies. To make it more understandable, the categorization proposed by Mokhtari and Reichard (2002) and Mokhtari and Sheorey (2002) is indicated in the following table.

Table 2.1. *Categorization of reading strategies (Mokhtari & Reichard, 2002; Mokhtari & Sheorey, 2002)*

Global reading strategies	1. Setting purpose for reading
	2. Activating prior knowledge
	3. Checking whether text content fits purpose
	4. Predicting what text is about
	5. Confirming predictions
	6. Previewing text for content
	7. Skimming to note text characteristics
	8. Making decisions in relation to what to read closely
	9. Using context clues
	10. Using text structure
	11. Using other textual features
Problem-solving strategies	1. Reading slowly and carefully
	2. Adjusting reading rate
	3. Paying close attention to reading
	4. Pausing to reflect on reading
	5. Rereading
	6. Visualizing information read
	7. Reading text out loud
	8. Guessing meaning of unknown words
Support reading strategies	1. Taking notes while reading
	2. Paraphrasing text information
	3. Revisiting previously read information
	4. Asking self-questions
	5. Using reference materials as aids underlining text information
	6. Discussing reading with others
	7. Writing summaries of reading

The categorization proposed separately by Mokhtari and Reichard (2002) and Mokhtari and Sheorey (2002) were formed within the development of Metacognitive Awareness of Reading Strategies Inventory (MARSI) and the Survey of Reading Strategies (SORS). In their studies, the researchers examined reading strategies in detail by directing attention to the gap of an instrument in the literature to evaluate learners' metacognitive awareness and perceived use of these strategies, and they developed MARSI and SORS, which are made up of 30 items questioning three types of reading strategies displayed in Table 2.1.

2.2.3. Theoretical framework of eye tracking

Winke, Godfroid and Gass argue that understanding how individuals learn languages is closely related to understanding the cognitive processes lying under acquisition (2013, p. 205). It is also pointed out that numerous methodologies have been utilized to investigate these processes and to reveal what underlies acquiring or learning a language but besides the traditional methodologies, recording eye movements of individuals, which is defined as eye tracking, has started to carve out a niche for itself in the field of SLA, too. Actually, eye movements research is not a completely new phenomenon, it has a long history, dating back to 1800s but utilizing eye tracking in research studies examining cognitive processes in L2 is relatively new (Dolgunsöz, 2015, pp. 12-21).

The reason why recently there has been a tendency to eye tracking methodology can be explained through the recent advancements in eye tracking technology – that is to say, specifically the availability of cheaper, faster, more accurate, and easier to use trackers, have inspired increased eye movement and eye tracking research efforts (Duchowski, 2007, pp. X-XI). Additionally, because eye tracking research studies enable researchers to discuss the same issues from a different point of view, it can be regarded as an innovative and prominent way of examining how L2 learning occurs and specifically the reading processes in L2.

Before indicating and discussing the L2 reading studies conducted by utilizing eye tracking, the elements of eye movement behaviour, namely what and how individuals see when looking at something will be explained.

2.2.3.1. *Gaze shifting eye movements*

Saccades and smooth pursuits (See Figure 2.1. and Figure 2.2.) are included in gaze shifting eye movements. Duchowski (2007, pp. 42-45) defines smooth pursuits as ‘eye movements that are involved when individuals visually track a moving target’ and saccades are defined as ‘rapid eye movements used in repositioning the fovea to a new location in the visual environment’. It is further stated that saccades are ballistic and stereotyped: the term stereotyped means that ‘particular movement patterns can be evoked repeatedly’ and the term ballistic refers to the idea that ‘saccade destinations are preprogrammed’. These saccadic movements can be both voluntary and reflexive. Dolgunsöz notes that reflexive saccades are made naturally and reflexively whereas

voluntary saccades occur in situations depending on cognitive control processes (2015, p. 18). Besides reflexive and voluntary saccades, the other two types of saccades are anti-saccades and glissades. Anti-saccades are 'voluntary eye movements made in the direction opposite to the side where a stimulus is presented' (Millodot, 2009) and glissades are 'gliding involuntary movements of the eye in changing the point of fixation' (Miller-Keane Encyclopedia and Dictionary, 2003).

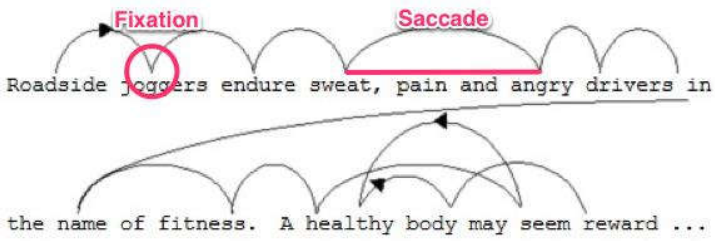


Figure 2.1. *Saccades versus Fixations (http-1)*

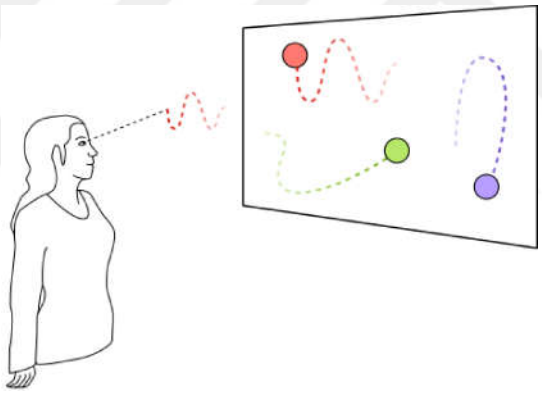


Figure 2.2. *Smooth Pursuits (http-2)*

2.2.3.2. *Fixational eye movements*

When looking at a scene, reading something or looking for an object, individuals always make eye movements called saccades as it has just been mentioned, and between the saccades, the eyes remain relatively still during fixations for about 200-300 ms (Rayner, 1998, p. 373). According to the definition by Duchowski (2007, p. 46), fixations are eye movements that stabilize the retina over a stationary object of interest (See Figure 2.1.). However, despite the common agreement on the fact that fixation is the period of time when the eyes are still, such a definition is not completely true since the eyes are in fact never truly still due to the constant tremor of the eyes called nystagmus (Rayner, 1998, p. 373).

2.2.3.3. *Nystagmus eye movements*

Nystagmus eye movements (See Figure 2.3.) are conjugate eye movements characterized by a time-series-signal pattern (Duchowski, 2007, p. 47). Optokinetic nystagmus and vestibular nystagmus are included in such movements.

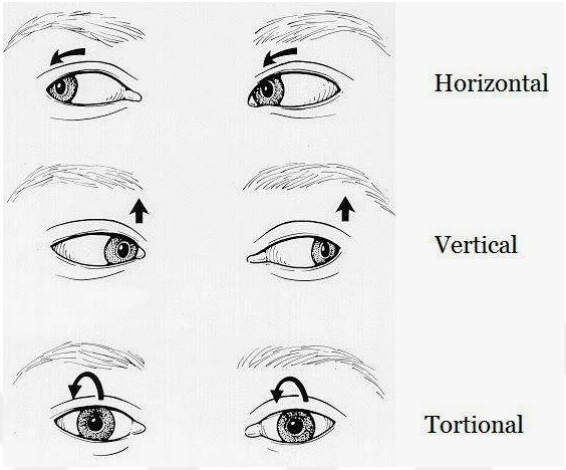


Figure 2.3. *Nystagmus Eye Movements (http-3)*

2.2.3.4. *Eye tracking in L2 reading*

Eye tracking has not been commonly used in the field of L2 reading when compared to the studies conducted in L1 setting. However, as it has been stated previously, thanks to the recent innovative advancements in eye tracking technology, making use of this tool has become more convenient and that's why, researchers have now started to use eye tracking in the L2 reading research studies as well (Bax, 2013, Godfroid & Spino, 2015; Hyöna & Nurminen, 2006; Kaakinen & Hyönä, 2005; Prichard & Atkins, 2016).

Hyöna, Lorch and Rinck (2003) affirm the applicability of eye tracking to examine global text processing in their study by both discussing the potential usefulness of eye movement measures that currently exist and suggesting new measures that can be efficiently used to investigate different aspects of global text processing. It is suggested that extended first-pass fixation time can also be used besides regional gaze duration and lookback fixation time. Although the study of Hyöna et al. (2003) was not carried out as a methodological research, the ideas and suggestions proposed by the researchers provide insight into the measures used in eye tracking.

As a study conducted to investigate the online comprehension of relevant and irrelevant text information by combining eye-tracking measures and think-aloud protocols, Kaakinen and Hyönä's (2005) study can be regarded as an encouraging study for the novice researchers who want to utilize eye tracking as either a main methodological tool or a supplementary data collection instrument. In their study, an expository text was used as the main reading material. 36 university students read the text and their eye movements were recorded through the EYELINK eye tracker. Additionally, think-aloud protocols were administered. The results revealed that the perspective-relevant information is both processed longer and also recalled better than perspective-irrelevant information and it is suggested that more studies should be carried out to find out how the higher level processes are used since they have been neglected in eye tracking researches so far.

Being one of the most recent eye tracking study, the study of Prichard and Atkins (2016) focuses on reading comprehension and reading strategies, which makes it more practical than those investigating cognitive processes since it enables researchers to discover how eye tracking technology can be used to improve L2 instruction or to facilitate L2 learning. They specifically enquired into use of previewing, which is a crucial global reading strategy, and both surveys and eye tracking technology were used to collect data. Furthermore, summary protocols were carried out to determine whether any significant relationship between the summary scores and the eye-tracking measures would be detected. The findings indicated that there was not a significant correlation between the summary scores and the total previewing time ($r(34) = .25$, $p = .07$), but a moderate significant correlation between the total fixation duration on the body text while previewing and the protocol score was found out ($r(34) = .31$, $p = .03$). This results yields that participants tended to get higher scores from their summary entries when looking at the body of the text, not other textual or contextual clues for a longer time. Moreover, surprisingly, the results of the survey did not correlate with the relevant eye tracking data – that is to say, despite the survey findings indicating participants' perceived use of previewing strategy in a positive manner, the eye tracking results showed that previewing strategy was not used at all. More precisely, the findings demonstrated that half of the participants did not look at the body of the text before linear reading of the text, and most of them did not fixate on the images before reading as well. Similarly, the participants tended not to preview headings or topics sentences.

Considering the results that Prichard and Atkins' (2016) study revealed, it can be concluded that eye tracking is potentially useful for gaining insights into what learners actually perform in practice. Because it can be difficult to clarify unclear points only by utilizing surveys or tests, eye tracking technology can be practically used to detect what actually happens in the process of L2 reading, especially in terms of strategy use while reading a text in L2.

2.3. Review of Empirical Research Studies on Reciprocal Teaching

A number of studies have been conducted so far to investigate whether reciprocal teaching will be efficient in improving reading comprehension of learners with reading disabilities (Bruce & Chan, 1991; Gersten et al., 2001; Klingner & Sharon Vaughn, 1996; Lysynchuk, Pressley, & Vye, 1990) and to examine the efficacy of reciprocal teaching in different grades (Doolittle et al., 2006; Gilroy & Moore, 1988; Gruenbaum, 2012; Kelly, Moore & Tuck, 1994; Slater & Horstman, 2002; Westera & Moore, 1995). The common aim of these research studies was to explore how strategy instruction, carried out through reciprocal teaching, affects learners' reading comprehension and use of reading strategies.

For instance, in the study of Spörer, Brunstein and Kieschke (2009), strategy instruction was carried out in four different ways, i.e. three strategy training conditions and one control condition, and it was aimed at investigating their effects on participants' reading comprehension skills and strategy use. The first reciprocal teaching condition can be described as the traditional reciprocal teaching method (Palincsar & Brown, 1984). However, direct instruction method was adopted yet it was combined with cognitive modelling and reciprocal teaching. The second condition was instructor-guided reading condition in which an instructor guided a very small number of participants. The instructor modelled the four strategies in the beginning, wanted the participants to utilize a strategy and took their feedback regarding the efficacy of the strategy. On the other hand, the third reciprocal teaching condition was conducted in pairs. To be more precise, the four strategies of reciprocal teaching were taught firstly and the participants kept practicing these strategies in pairs as the name of it, reciprocal teaching in pairs condition, implies. Finally, in the last condition that was defined as the control condition by the researchers, the participants went on their regular reading courses. To collect data, the researchers utilized three different types of tools: strategy

acquisition tests, reading comprehension tests and social validity test. The strategy acquisition tests were administered to examine if there would be any improvements or differences in participants' strategy use whereas reading comprehension tests were utilized with the aim of investigating the effect of instruction on participants' reading comprehension skills, and the social validity was used to explore participants' perceptions about the efficacy of the instruction. The results indicated that reading comprehension skills and strategy use of the participants in the reciprocal teaching group improved more than the ones in the instructor-guided reading condition and the control condition. Thus, it can be concluded that traditional reciprocal teaching has facilitative effects on improvement of reading comprehension and strategy use, which likewise was concluded in the study of Doolittle et al. (2006).

Though the two studies proposed the same conclusions, Doolittle et al.'s (2006) study is more conceptual and personally practice-based. In other words, unlike Spörer, Brunstein and Kieschke's (2009) study, reciprocal teaching is explained and discussed in detail in the study of Doolittle et al. (2006), then five researchers describe how they utilize reciprocal teaching while teaching in a precise way. Because teaching contexts of each researcher, to a certain extent, differ from each other, their suggestions and practices provide highly valuable insights into the nature of reciprocal teaching. Furthermore, it has been suggested by the research studies that the process of reciprocal teaching might be changed and modified considering the needs or levels of learners and the teaching context.

For example, Lysynchuk, Pressley and Vye (1990) carried out a research study with 72 poor comprehenders. Their study was conducted as an experimental research study in which two conditions, i.e., reciprocal teaching condition and control condition, were created. For 13 sessions, half of the participants were instructed through reciprocal teaching whereas the other half were exposed to no strategy training. Both daily assessment tasks and standardized reading comprehension test were used to investigate whether reciprocal teaching would be more successful in fostering reading comprehension of the participants. The results were consistent with the original reciprocal teaching research study of Palincsar and Brown (1984) and that of Spörer, Brunstein and Kieschke (2009), so the fact that reciprocal teaching can be effectively used to enhance reading comprehension and strategy use of learners with reading

disabilities has been supported with the findings of Lysynchuk, Pressley and Vye's (1990) study.

Another study, substantiating the efficacy of reciprocal teaching, is Salataci and Akyel's (2002) study. A research study conducted with Turkish EFL learners, this study aimed at exploring learners' use of reading strategies both in Turkish and English and examining how strategy instruction affected reading in Turkish and English. The participants were exposed to 4-week strategy instruction and the data were collected with 6 different instruments, i.e. the reading tasks, a semi-structured interview, a background questionnaire, think-aloud protocols, observation and the reading component of preliminary English test. As a result, it was found out that strategy training carried out through reciprocal teaching was useful to facilitate the use of predicting, summarizing and using background knowledge strategies. Moreover, considering the aim of the study, the results revealed that transfer of the strategies between English and Turkish was interactive and bidirectional. On the other hand, it was seen that participants' reading comprehension scores improved after the instruction. Additionally, there was a statistically significant difference between the frequencies of metacognitive strategies utilized by the participants before and after the instruction. Because the number of reciprocal teaching research studies conducted in Turkish EFL context is relatively limited, the findings of Salataci and Akyel's (2002) study are highly valuable. However, the focus of the study is not solely on reading in English, so more in-depth studies are required to investigate how reciprocal teaching affects reading comprehension skills and strategy use of Turkish EFL learners.

In view of this suggestion, it can be said that Dokur's (2017) study is a recent research study, filling this gap in the literature. Because young EFL learners were the participants of this recent study, it enables us to explore how reciprocal teaching can be utilized with different age groups. The efficacy of reciprocal teaching was examined comparing the results of two TEOG tests, the high school entrance examination administered in Turkey, and an attitude questionnaire. Furthermore, teachers' notes were utilized to evaluate the process from another perspective. The quasi-experimental research design was adopted in the study, so a group of participants were exposed to strategy instruction whereas the other group, the control group took no strategy instruction and went on their regular traditional lessons. The results indicated that reading comprehension scores of both the experimental group and the control group

improved as a result of the study. However, it was evident that the scores of the participants in the experimental group were higher. It was also observed that the experimental group developed a more positive attitude towards making mistakes, which is possibly due to the nature of reciprocal teaching. More precisely, in reciprocal teaching, though there is a leader who guides the process, all the learners work collaboratively and there is a step, named *clarifying*, designed only for making unclear vocabulary or grammar structures comprehensible. Therefore, thanks to the nature and the steps of reciprocal teaching, learners can approach the mistakes in a more moderate manner.

The research studies discussed above make significant contributions to the literature. They revealed that reciprocal teaching can be utilized for the betterment of learners' reading comprehension scores and strategy use. The data were obtained from various instruments, which lets researchers put forward more comprehensible conclusions and suggestions. However, despite the variety of data collection instruments used in these studies, the number of research studies utilizing an innovative tool, which provides more objective findings to find out to what extent learners employ reading strategies, is highly limited. Therefore, the present study obtained the data from a recent innovative tool, eye tracking, but in addition to eye tracking, Metacognitive Awareness of Reading Strategies Inventory (MARSI) (Mokhtari & Reichard, 2002) was administered, and think-aloud protocols and reading comprehension tests were conducted, too. It was aimed at exploring to what extent the participants were aware of global reading strategies and how the strategy training affected their awareness towards these strategies utilizing MARSI, and differences in their use of global reading strategies throughout the process were investigated carrying out think-aloud protocols as well as eye tracking. On the other hand, since the other purpose of the present study was to examine how reading comprehension scores were affected because of the instruction, reading comprehension tests were also held.

2.4. Review of Empirical Research Studies on Global Reading Strategies

As it was mentioned previously, global reading strategies are the strategies proposed by Mokhtari and Reichard (2002) and Mokhtari and Sheorey (2002) within the construction of Metacognitive Awareness of Reading Strategies Inventory (MARSI) and the Survey of Reading Strategies (SORS). Although the instruments are relatively

new to the field, they have been utilized in various studies (Amer, Barwani & Ibrahim, 2010; Ilustre, 2011; Jafari & Shokrpour, 2012; Karbalaei, 2010; Yüksel & Yüksel, 2012; Zhang & Wu, 2009).

Zhang and Wu (2009) carried out their research study to investigate Chinese senior high school students' reading-strategy use and metacognitive awareness towards reading strategies. The Survey of Reading Strategies (SORS) (Mokhtari & Sheorey, 2002) was administered to 270 participants, yet 249 students' answers could be assessed. However, additionally, the researcher made certain adaptations in the SORS in order to increase practicality and achievability of the study. Moreover, because the researcher aimed at evaluating the results according to the participants' proficiency levels, these 249 participants were categorized considering 3 different proficiency levels: high, intermediate and low. The categorization was done in accordance with the average scores of three English exams administered to all the participants. How reading strategies are classified was previously explained in Table 2.3. and it was mentioned before that the focus of the present study was solely on global reading strategies, but Zhang and Wu (2009) aimed at examining all three types of reading strategies differently from the current study. The findings were encouraging with respect to global reading strategies because it was found out that global reading strategies were very frequently employed by the participants. Specifically, the results indicated that the participants in the high-proficiency group utilized global reading strategies statistically more frequently than the intermediate-proficiency and low-proficiency groups.

Similarly, Ilustre (2011) used the SORS to collect data in her study, examining to what extent participants' awareness towards metacognitive reading strategies or their beliefs about reading is associated with reading comprehension, so there were three variables in the study. Thus, besides the SORS, two data collection instruments were utilized: the Reading Beliefs Inventory (RBI) (Kara-Soteriou, 2007) and a reading comprehension test prepared by the researcher. The results revealed a positive correlation between participants' reading comprehension scores and use of problem-solving strategies, which means that the participants who got higher scores from the reading comprehension tend to utilize problem-solving strategies more frequently. However, regarding global and support reading strategies, no correlation was found. Although this finding could not be interpreted a very optimistic result in respect of

global reading strategies, it actually emphasizes a need for raising learners' awareness towards global reading strategies as well as support reading strategies.

Though it is not a study focusing specifically on global reading strategies, the study of Yüksel and Yüksel (2012) is another study which aimed at exploring learners' metacognitive awareness with regard to reading strategies. Like Zhang and Wu (2009) and Ilustre (2011), the researchers administered the SORS as well, yet the point is that this recent study was conducted in Turkish EFL context, which makes it contextually more crucial. The findings showed that 34 % of the participants usually used reading strategies. However, problem-solving strategies were employed most frequently while support reading strategies were the least frequently used type of reading strategies, so although the participants reported that they often utilized global reading strategies and they were aware of them, it can be concluded from the results that there was a need for guiding learners to become better comprehenders.

This need can be fulfilled by carrying out a training, particularly designed for the betterment of learners' strategy use or improvement of their metacognitive awareness towards reading strategies (Muñiz-Swicegood, 1994; Sung, Chang, & Huang, 2008). In the present study, the participants were instructed through reciprocal teaching and how the instruction affected their use of global reading strategies and reading comprehension skills was examined utilizing four data collection tools. Thus, it might shed light on the use of reading strategies by the Turkish EFL learners through the integration of instructional elements and different research tools into the research environment.

2.5. Review of Empirical Research Studies on Eye Tracking in L2

Bax (2013, p. 444) compares the processes that occur while learners read a text in their mother tongue and in a second language to answer questions related to the text. It is suggested out that in L1 reading, few regressions are observed whereas individuals tend to read the text repeatedly or go back to the relevant parts of the text to comprehend it fully or to answer the questions correctly. Therefore, Bax (2013) investigated whether there was a difference between successful and unsuccessful IELTS test takers' reading behaviours, and eye tracking data were collected to explore to what extent such a difference would be observed. However, besides eye tracking, stimulated recall interviews were also conducted to interpret the eye tracking data better and more meaningfully. 71 Malaysian undergraduates took an onscreen reading test, including

two IELTS reading passages with a total of 11 items, and their eye movements were recorded while they were taking the test. The findings indicated significant differences between successful and unsuccessful participants' reading behaviours. To be more precise and specific, there were differences in "their ability to read with speed and efficiency and their focus on particular aspects of the passages and items" (Bax, 2013, p. 460-461). This study is highly valuable in gaining new insights into the cognitive processes of L2 reading and provides suggestions for test planners as well as learners and teachers.

A more specific research study, Hyönä, Lorch and Kaakinen,'s (2002) study focuses on reading strategies rather than exploring the cognitive processes that learners engage in while reading in L2 or taking reading tests in L2. In the data collection procedure, the participants read two multiple-choice expository texts and their eye movements were recorded in the meantime. Additionally, a reading-span test was utilized and a summary protocol for only the first text was conducted. It was aimed to evaluate the eye tracking findings more meaningfully and comprehensibly. The results revealed four cluster profiles: fast linear readers, nonselective reviewers, slow linear readers, and topic structure processors. The most distinctive feature of fast linear readers was that they rarely reprocessed any parts of the texts. Similarly, slow linear readers did very little reprocessing, i.e. looking back. However, they differed in overall speed of processing during the first pass. On the other hand, nonselective reviewers tended to look back more and longer when compared to other cluster profiles and, as the name implies, topic structure profiles spent more time reading the text's topic structure and the headings. The differences in the four cluster profiles, in fact, demonstrated that the participants employed different reading strategies while comprehending the texts.

In a similar way, considering that there might be certain individual differences in the reading process, Hyönä and Nurminen (2006) aimed at investigating if adult readers are aware of the fact that they utilize reading strategies while reading and how they differ from each other regarding their use of these strategies. While the participants read a long expository text, their eye fixation patterns were recorded, and then a cluster analysis was conducted to reveal which styles of readers emerged in the data. However, in addition to the eye tracking data, a questionnaire, examining participants' reading behaviours and individual reading styles, was administered, and the participants were told to write a summary making a list of the main points in the text. The analysis

confirmed the findings of Hyönä, Lorch and Kaakinen,'s (2002) study and indicated three types of reading styles: topic structure processors, fast linear readers, and slow linear readers. Moreover, the results of correlation analysis showed that there were positive correlations between the corresponding eye tracking data and the findings of the questionnaire and the summary protocols. More precisely, it was found that the participants were aware of the fact that they looked back and reread certain parts of the text. Besides, the findings indicated that the participants displaying rereading behaviour more were more successful in recalling the main points of the text and writing the summary.

Approaching reading strategies from a different perspective and narrowing down the topic, Prichard and Atkins's (2016) examined to what extent Japanese university students employed previewing strategies, one of the global reading strategies, while reading an expository text. Eye tracking and the SORS (Mokhtari & Sheorey, 2002) were utilized to collect data, yet the participants were required to write a summary including the main points of the text so as to figure out whether there would be a correlation between the eye tracking findings and the results of the summary protocol. It was seen that Japanese L2 readers did not utilize previewing strategies to a large extent – that is to say, half of the participants displayed previewing behaviour little whereas most of them did not look at even the title or subtitle. Additionally, the findings revealed a significant weak correlation between the participants' fixation duration of the body text and their summary scores. Although it could be inferred from this finding that "previewing a text enhances L2 readers' summary skills" (Prichard & Atkins, 2016, p. 125), the researchers suggested that more research studies should be carried out to confirm this finding and conclusion.

Though eye tracking studies are becoming more popular thanks to the technological innovations, the number of research studies utilizing eye tracking in the Turkish EFL context is relatively limited. Similarly, the number of master's theses and doctoral dissertations conducted with the Turkish EFL learners and using eye tracking as the data collection tool is very limited (Cinkara, 2014; Dolgunsöz, 2015; Kaçar, 2018; Özdemir, 2012; Özturhan, 2018; Turan, 2018). These studies are extremely valuable to gain insights regarding eye tracking methodology and its use in the field of L2. However, considering the limited number of research studies, in which a strategy instruction is carried out and its efficacy is examined utilizing eye tracking, it can be

said that the current research study might throw light on the use of global reading strategies in the Turkish EFL environment.

2.6. Summary Table for the Studies

12 studies have been discussed under three subheadings to indicate how the main concepts of the present study have been approached. The following table was prepared for a more efficient clarification and as a summary of the aforementioned studies.

The studies included in the table were chosen in accordance with the fundamentals of the current research study. More precisely, as it was mentioned previously, the present study was grounded on global reading strategies, reciprocal teaching and eye tracking. It should also be noted that eye tracking was only utilized as a data collection tool, and besides eye tracking, three data collection instruments, namely think-aloud protocols, Metacognitive Awareness of Reading Strategies Inventory (MARSI) (Mokhtari & Reichard, 2012) and reading comprehension tests were also used to collect data.

A global reading strategy training was carried out through reciprocal teaching, and its effects on the Turkish EFL learners' use of global reading strategies, metacognitive awareness regarding these strategies and L2 reading comprehension were investigated administering the aforementioned four data collection instruments.

In the table below, firstly the empirical research studies on reciprocal teaching are summarized. The studies of Lysynchuk, Pressley and Vye (1990), Salatacı and Akyel (2002), Doolittle et al. (2006), Spörer, Brunstein and Kieschke (2009), and Dokur (2017) are indicated respectively. Moreover, three research studies examining the use of global reading strategies (Ilustre, 2011; Yüksel & Yüksel; 2012; Zhang & Wu, 2009) are summarized as well in the following table.

Finally, with regard to the third fundamental concept, four empirical research studies are included and displayed in the summary table below. The studies of Hyönä, Lorch and Kaakinen (2002), Hyönä and Nurminen (2006), Bax (2013), and Prichard and Atkins (2016) are indicated respectively.

Although all the empirical research studies that Table 2.2. includes were examined and discussed previously, the aims of the studies, the data collection tools and the findings are displayed in the summary table to clarify their crucial points.

Table 2.2. *Summary Table for the Studies Discussed in the Literature Review Chapter*

Topic	Name of the Study	Authors/Researchers	Year Published	Aim(s)	Data Collection Tools	Findings
Reciprocal Teaching (RT)	Reciprocal Teaching Improves Standardized Reading- Comprehension Performance in Poor Comprehenders	Lysynchuk, Pressley and Vye	1990	• To investigate the efficacy of reciprocal teaching under two different conditions	• Daily assessment tasks • A standardized reading comprehension test	• Reciprocal teaching can be effectively used to enhance reading comprehension and strategy use of learners with reading disabilities.
RT	Possible Effects of Strategy Instruction on L1 and L2 Reading	Salataci and Akyel	2002	• To explore learners' use of reading strategies both in Turkish and English • To examine how strategy instruction affected reading in Turkish and English	• The reading tasks • A semi-structured interview • A background questionnaire • Think-aloud protocols • Observation • The reading component of preliminary English test	• Strategy training carried out through reciprocal teaching was useful to facilitate the use of predicting, summarizing and using background knowledge strategies. • Transfer of the strategies between English and Turkish was interactive and bidirectional. • Participants' reading comprehension scores improved after the instruction. • There was a statistically significant difference between the frequencies of metacognitive strategies utilized by the participants before and after the instruction.
RT	Reciprocal Teaching for Reading Comprehension in Higher Education: A Strategy for Fostering the Deeper Understanding of Texts	Doolittle et al.	2006	• To show different uses and interpretations of reciprocal teaching	• Authors' self-reflections	• Reciprocal teaching is a very useful method to facilitate L2 readers' reading comprehension skills. • The process of reciprocal teaching might be changed and modified considering the needs or levels of learners and the teaching context
RT	Improving Students' Reading Comprehension Skills: Effects of Strategy Instruction and Reciprocal	Spörer, Brunstein and Kieschke	2009	• To examine the effects of three different forms of	• Strategy Acquisition Tests • Reading	• Reading comprehension skills and strategy use of the participants in the reciprocal teaching group improved more than the ones in the instructor-

	Teaching			strategy instruction	Comprehension Tests • Social Validity Test	guided reading condition and the control condition.
RT	The Impact of Reciprocal Teaching Strategies on Language Proficiency of Young EFL Learners	Dokur	2017	• To examine whether reciprocal teaching is useful for the improvement of young L2 readers' reading comprehensio n skills	• Standardized Reading Tests (TEOG Tests) • Attitude Questionnaires • Teacher's Checklist and Notes	• Reading comprehension scores of both the experimental group and the control group improved as a result of the study, but the scores of the participants in the experimental group were higher. • The experimental group developed a more positive attitude towards making mistakes, which is possibly due to the nature of reciprocal teaching.
Global Reading Strategies (GLOB)	Chinese Senior High School EFL Students' Metacognitive Awareness and Reading-Strategy Use	Zhang & Wu	2009	• To investigate Chinese senior high school students' reading-strategy use and metacognitive awareness towards reading strategies	• The Survey of Reading Strategies (SORS) (Mokhtari & Sheorey, 2002) – The researcher made certain adaptations in the SORS in order to increase practicality and achievability of the study. • Three English exams for the categorization of the participants	• Global reading strategies were very frequently employed by the participants. • The participants in the high-proficiency group utilized global reading strategies statistically more frequently than the intermediate-proficiency and low-proficiency groups.
GLOB	Beliefs about Reading, Metacognitive Reading Strategies and Text	Ilustre	2011	• To examine to what extent participants'	• The Survey of Reading Strategies	• A positive correlation between participants' reading comprehension scores and use of problem-solving

	Comprehension among College Students in a Private University			awareness towards metacognitive reading strategies or their beliefs about reading is associated with reading comprehensio n	(SORS) (Mokhtari & Sheorey, 2002) • The Reading Beliefs Inventory (RBI) (Kara-Soteriou, 2007) • A reading comprehension test prepared by the researcher	strategies was found. • Regarding global and support reading strategies, no correlation was found.
GLOB	Metacognitive Awareness of Academic Reading Strategies	Yüksel and Yüksel	2012	• To investigate learners' metacognitive awareness with regard to reading strategies	• The SORS	• 34 % of the participants usually used reading strategies. • Problem-solving strategies were employed most frequently while support reading strategies were the reading strategies used least frequently.
Eye Tracking (ET)	Individual Differences in Reading to Summarize Expository Text: Evidence From Eye Fixation Patterns	Hyönä, Lorch and Kaakinen	2002	• To identify which reading strategies are used by adult L2 readers while they are reading multiple-topic expository texts	• Two multiple-choice expository texts • A reading-span test • A summary protocol	• The results revealed four cluster profiles: fast linear readers, nonselective reviewers, slow linear readers, and topic structure processors. • The differences in the four cluster profiles indicated that the participants employed different reading strategies while comprehending the texts.
ET	Do Adult Readers Know How They Read? Evidence From Eye Movement Patterns and Verbal Reports	Hyönä and Nurminen	2006	• To examine if adult readers are aware of the fact that they utilize reading strategies	• Eye tracking data • A questionnaire, examining participants' reading behaviours and	• The analysis confirmed the findings of Hyönä, Lorch and Kaakinen,'s (2002) study and indicated three types of reading styles: topic structure processors, fast linear readers, and slow linear readers. • The results of correlation analysis

				while reading and how they differ from each other regarding their use of these strategies • To investigate whether there was a difference between successful and unsuccessful IELTS test takers' reading behaviours	individual reading styles • A summary protocol	showed that there were positive correlations between the corresponding eye tracking data and the findings of the questionnaire and the summary protocols.
ET	The Cognitive Processing of Candidates During Reading Tests: Evidence From Eye-Tracking	Bax	2013		• Eye tracking – An onscreen test including two IELTS reading passages with a total of 11 items • Stimulated recall interviews	• Differences in "participants' ability to read with speed and efficiency and their focus on particular aspects of the passages and items" were found (Bax, 2013, p. 460-461).
ET	Evaluating L2 Readers' Previewing Strategies Using Eye Tracking	Prichard and Atkins	2016	• To investigate to what extent Japanese university students employed previewing strategies while reading an expository text	• Eye tracking • The SORS • A summary protocol	• Half of the participants displayed previewing behaviour little whereas most of them did not look at even the title or subtitle. • There was a significant weak correlation between the participants' fixation duration of the body text and their summary scores.

3. METHODOLOGY

3.1. Participants

To determine the participants of the present study, a reading proficiency test was administered in the first week of 2018 – 2019 Academic Year Fall Term. The reading test was a standardized IELTS general training reading test, accessible in *Complete IELTS Bands 5 – 6.5* course book published by Cambridge University Press (2012). The book specifically focuses on IELTS preparation and provides various activities to prepare learners for the IELTS test at an intermediate level (B2). Additionally, opinions of four experts from the field, two of whom are full-time lecturers at the Department of Foreign Languages, and two of whom are full-time faculty members at the Department of Foreign Languages Education, were asked before administering the reading proficiency test. They informed that the test was suitable to be utilized.

Totally 80 students, who are enrolled in Bayburt University, Faculty of Education, the Department of English Language Teaching, took the reading test. 53 of the students were incoming freshman students whereas 27 students had already completed preparatory class and spent an academic year in the ELT Department. The idea of administering the test with both incoming freshman students and first graders is that there might be some students who would pass the proficiency exam, held in the beginning of every academic year to determine whether freshman incoming students would skip the preparatory year. More precisely, even though incoming freshman students have not attended preparatory class, they can be proficient enough to pass the proficiency exam, skip the preparatory class and start their bachelor's degrees right from the first grade. Therefore, the reading proficiency test was conducted to both groups of students.

The test consists of 3 reading passages and 40 questions related to the passages. In the first section of the test, there are a total of 13 questions, which include True/False and multiple-choice questions. The second section of the test is similar to the first section, but it covers 17 questions and includes fill-in-the-blanks questions, too. As for the last section, there are 10 questions on the third reading passage, and it also includes multiple-choice and fill-in-the-blanks questions.

Every correct answer constitutes 1 point, so the scores were calculated out of 40 and then were categorized according to the IELTS General Training Reading Band Scores. Table 3.1. displays the results of categorization:

Table 3.1. *Categorization of IELTS reading (general training) exam scores*

IELTS Band Score	N	*f*
2,5	80	1
3	80	8
3,5	80	13
4	80	26
4,5	80	19
5	80	10
5,5	80	2
6	80	1

As Table 3.1. shows, the band scores of the students were cumulated around Bands 4 and 4,5. However, in order to include more proficient L2 readers as well as less proficient L2 readers, the selection of participants was made paying regard to both homogeneity and heterogeneity. To be more precise, equal number of participants from different band scores were chosen, which ensured homogeneity because each band score group was equally proficient as approved by the IELTS Reading Test. On the other hand, students from 6 different band scores were included since more proficient readers would be needed to initiate the reciprocal teaching process and less proficient readers were also chosen as participants because reciprocal teaching was already originally developed for students having certain problems in reading (Palincsar & Brown, 1986, p. 774). Including both less and more skilled comprehenders provided more various insights regarding the efficacy of reciprocal teaching. In Table 3.2., the distribution of participants according to the band scores is displayed. As it is shown in Table 3.2., the numbers of more proficient comprehenders and less proficient comperehenders are equal and the number of participants is 23 in total.

Table 3.2. *Distribution of participants*

IELTS Band Score	N
3	2
3,5	4
4	5
4,5	6
5	4
5,5	2

After deciding on the participants, consent forms (see Appendices A1, A2, A3, and A4) were given and collected, and a short and clear questionnaire (see Appendix B)

was conducted to get participants' demographic information and to find out whether or not they have received a strategy training, aiming to facilitate the use of reading strategies, before. As a result, it was seen that all the participants were monolingual speakers of Turkish, their ages range from 18 to 22, and 17 of them were female while 6 participants were male. Furthermore, even though they have been learning English for approximately 11 years, all of the participants stated that they had not received a strategy training previously.

3.2. Data Collection Instruments

3.2.1. Metacognitive awareness of reading strategies inventory

Metacognitive Awareness of Reading Strategies Inventory (MARSI), developed by Mokhtari and Reichard (2002), was utilized to discover participants' awareness in respect to their use of global reading strategies. MARSI specifically investigates metacognitive awareness and perceived use of reading strategies (See Appendix C). It consists of three types of strategies, namely global reading strategies (GLOB), problem-solving strategies and support reading strategies. 13 items of the inventory focus on global reading strategies while 8 of them questions problem-solving strategies and 9 items are on support reading strategies. However, since the primary aim of the present study is to investigate use of global reading strategies, only the items examining participants' metacognitive awareness and perceived use of global reading strategies are examined in detail. The participants are supposed to respond to the items by choosing one of the statements, ranging from 'I never or almost never do this' to 'I always or almost always do this'.

The purpose of utilizing MARSI is closely related to the specified strategies included in the inventory. More precisely, as explained previously, the reading strategies are clearly described, named and classified into three main categories within this inventory. In addition, its being very applicable to perceive, understand and interpret makes it a useful tool for both teachers and researchers so as to facilitate and evaluate learners' awareness towards the underlying processes of reading (Mokhtari & Reichard, 2002, p. 255). In line with this qualification of MARSI and taking the aim of the present study into account, the reason why it was chosen to be utilized in this research study can be understood better. The goal of the current study was shaped and determined when the research studies, administered MARSI as a data collection

instrument, were examined in detail. Therefore, the inventory is of great importance in the present study.

Another encouragement for conducting this tool within this research study is its being up-to-date as well as a reliable instrument. Mokhtari and Reichard developed MARSI in 2002, and once constructing it, they tested its reliability for each factor and each grade level. The reliability for the total sample was found to be .89 and Cronbach's alpha for the "global reading strategies" factor was .92. As for the current research study, the reliability analyses, i.e. for the first and second administration of MARSI, were also carried out on the "global reading strategies" factor, comprising 13 items. Cronbach's alpha showed that the GLOB subscale of the inventory reached acceptable reliability, $\alpha = 0.75$ in the first administration, and the reliability of the subscale was found to be .77 in the second administration. These findings showed that MARSI is a suitable instrument as well as a reliable inventory to be used within the context of the present research study since the α results were found to be at the recommended value (Streiner, 2003, pp. 102-103).

3.2.2. Reading comprehension tests

Three reading comprehension tests (See Appendices D1, D2 and D3) were administered throughout the present study: in the beginning, after the fifth week and at the end of the study. The tests were included in *Cambridge University Press Empower B2 Upper Intermediate* workbook (2015). The aim to utilize the available comprehension tests was to ensure that reading comprehension scores of the participants were examined through the standardized tests and all tests were in the same level. Additionally, readability scores of each text were calculated according to two different formulas: Flesch Reading Ease and Flesch-Kincaid Grade Level. Flesch Reading Ease Formula is a basic formula, developed by Rudolph Flesch (1948). In this formula, readability ease (RE) of a text is determined considering average sentence length (ASL) and average number of syllabuses per word (ASW) as shown below.

RE = 206.835 – (1.015 x The Number of Words / The Number of Sentences) – (84.6 x The Number of Syllables / The Number of Words)

RE = 206.835 – (1.015 x ASL) – (84.6 x ASW)

RE scores are, then, interpreted in accordance with the ranges of scores. Table 3.3. demonstrates how scores range and are described.

Table 3.3. *Flesch Reading Ease scores (Flesch, 1949, p. 149)*

Description of Style	Average Sentence Length	Average No. of Syll. Per 100 Words	Reading Ease Score
Very easy	8 or less	123 or less	90 to 100
Easy	11	131	80 to 90
Fairly easy	14	139	70 to 80
Standard	17	147	60 to 70
Fairly difficult	21	155	50 to 60
Difficult	25	167	30 to 50
Very difficult	29 or more	192 or more	0 to 30

On the other hand, Flesch-Kincaid Grade Level (1975) is a formula developed by John P. Kincaid, Fishburne, Rogers, and Chissom using Flesch Reading Ease formula as a base. In this formula given below, Flesch-Kincaid Reading Age (FKRA) is determined. FKRA is basically evaluated in accordance with grade levels. For instance, if it is found as 7.3, it means that the reading text is suitable to be read by a seventh grader.

$$FKRA = (0.39 \times ASL) + (11.8 \times ASW) - 15.59$$

In the present study, readability scores of the texts in three reading comprehension tests, the texts utilized in three eye tracking tests and the texts used during training sessions were calculated according to both types of formulas (See Appendix E) using Microsoft Word 2016 so as to check and ensure the suitability of the passages for the participants' proficiency level. In addition to determining readability scores of the texts, expert opinions were taken before administering the tests as well. The experts agreed on the suitability of the tests, so in consequence of experts' feedback and readability scores, the tests were found to be appropriate. Table 3.3. shows the readability scores of the texts.

Table 3.4. *Readability scores of the texts in reading comprehension tests*

Text	Flesch Reading Ease Score	Flesch-Kincaid Reading Age
First Text	62,9	9,9
Second Text	62,2	9,1
Third Text	63,6	9,0

All three tests consisted of one reading text and 4 reading comprehension exercises. Though the first three exercises in the reading comprehension tests comprised matching, True / False, completing the sentences, and ticking the most appropriate answer activities, the last exercise specifically focused on summarizing. Because giving a summary is one of the global reading strategies as well as one of the keystones of reciprocal teaching, a modification was made and the last question was changed in accordance with the aims of the present study. Opinions of experts were taken before modifying the last question. And, accordingly, it was decided that instead of asking participants to write an entirely new paragraph about the content of the text, asking for a summary about what they read could be more appropriate and more logical, which also served the purposes of the present study as it has just been mentioned.

3.2.3. Think-aloud protocols

Think-aloud protocols can be used together with eye tracking (Godfroid & Spino, 2015; Kaakinen & Hyona, 2005; Kaçar, 2018) because they both attempt to clarify the unknown and shed more light on the unclear points. For example, Salatacı and Akyel (2002) utilized think-aloud protocols to discover the effects of strategy instruction. On the other hand, eye tracking was administered with verbal reports in the study of Hyöna and Nurminen (2006). However, because of the limited number of studies using both eye tracking and think-aloud protocols, the present study filled the gap in the literature by investigating to what extent participants used global reading strategies through retrospective think-aloud protocols and eye tracking as well as MARSI and reading comprehension tests.

It has been stated by (Yoshida, 2008, p. 199) and put forward by Ericsson and Simon (1993) that there are two types of think-aloud protocols: concurrent and retrospective. As their name imply, in concurrent think-aloud protocols, participants simultaneously perform a task and verbalize what they have in their minds. However, as for the retrospective think-aloud protocols, they need to look back and remember what

they have thought– that is to say, after a task is implemented, participants are asked to recall how they have performed the task and what they have thought throughout the process. In this study, retrospective think-aloud protocols were administered because participants were supposed to think loudly about the texts in reading comprehension tests. More precisely, they, first, took the reading comprehension test and right after the test, think-aloud protocols were conducted one by one. Since three reading comprehension tests were administered, think-aloud protocols were also conducted three times: in the beginning, after completing the third week and at the end of the study. The participants, without researcher's interference, thought the reading process over and stated how they had read the text. The protocols were carried out in Turkish because the aim was to get insights into participants' reading process and use of global reading strategies, so conducting them in their mother tongue would be more appropriate considering that they might have difficulty in expressing their thoughts in English. Nevertheless, participants had certain difficulties in verbalizing or naming what they had done. Therefore, asking guiding questions, the researcher helped them recall, describe or define what they had already done, only when necessary. The recorded think-aloud protocols were, then, transcribed and analysed utilizing Salatacı and Akyel's (2002) coding scheme, a modified version of Davis and Bistodeau's (1993) basic coding scheme and Block's (1986) coding scheme. The researchers needed to make certain changes in accordance with the purposes of their study, and Salatacı and Akyel's (2002) coding scheme was needed to be modified for the aims of the present study as well. In *Appendix F*, the modified coding scheme is presented.

3.2.4. Eye tracking materials

Three texts were utilized in three eye tracking sessions. The texts were not the same texts as the ones in reading comprehension tests and think-aloud protocols. The aim of utilizing different texts was to eliminate the negative washback effect – that is to say, if participants had thought that they would get a score after reading the texts in monitor screen, they might have paid more attention to the score, so their use of global reading strategies might not have been observed and recorded naturally. However, the point was to examine to what extent participants utilize global reading strategies while reading normally, without feeling any testing pressure. Thus, the texts utilized in eye tracking sessions were different from the ones in reading comprehension tests and

think-aloud protocols. Nevertheless, after every eye tracking session, a short test including 3 questions (See Appendices G1, G2 and G3) was used only to ensure that participants really read the texts. The participants were informed that they would not be given any score for their answers to these three questions.

To determine to what extent the participants use global reading strategies while reading, the following were recorded:

- the number of total fixation duration, fixations and revisits on the title,
- the number of total fixation duration, fixations and revisits on the introductory paragraph,
- the number of total fixation duration, fixations and revisits on the images,
- the total number of fixations on the whole text.

It has been stated before that there are basically 11 global reading strategies as proposed by Mokhtari and Reichard (2002, p. 259), which can be listed as follows:

1. setting purpose for reading,
2. activating prior knowledge,
3. checking whether text content fits purpose,
4. predicting what text is about,
5. confirming predictions,
6. previewing text for content,
7. skimming to note text characteristics,
8. making decisions in relation to what to read closely,
9. using context clues,
10. using text structure,
11. using other textual features.

However, in the present study, use of 4 global reading strategies (i.e. previewing text for content, using context clues, using text structure and using other textual features) was investigated since the others cannot be examined through eye tracking. For this reason, think-aloud protocols were also utilized to find out whether the other 7 global reading strategies were used by the participants while comprehending the texts.

3.2.4.1. *Selection of eye tracking materials*

To decide on which texts would be used during eye tracking sessions, before the procedure started, a pilot implementation was conducted with 20 students. It was aimed to find out the most appropriate, reader-friendly, readable, and the least discomfortable or disturbing texts. 5 texts were decided before the implementation. All five texts were available in *Cambridge University Press Empower B2 Upper Intermediate* course book (2015), so using these standardized reading materials ensured that the texts were in the same level. Moreover, the opinion of an expert was taken while choosing the texts and the readability scores of the texts were also calculated.

After reducing the number of the texts and eliminating inappropriate ones, a checklist (See Appendix H), consisting of 5 short questions, was prepared by the researcher with the guidance of an expert, and the students were supposed to look at the texts and complete the checklist. The aim was to select the most suitable three texts, which would allow participants to read without having any difficulty. Table 3.5. displays the results of checklist analysis.

Table 3.5. *Results of checklist analysis*

Item	Text 1		Text 2		Text 3		Text 4		Text 5	
	N	M	N	M	N	M	N	M	N	M
Can you read the text without difficulty?	20	9,00	20	7,50	20	7,65	20	5,75	20	7,90
Are the pictures in the text clear?	19	9,79	20	8,75	20	9,05	20	8,00	20	9,45
Are there any blurs that disturb you?	20	9,60	20	8,20	20	8,65	20	6,20	20	9,10
Can you read the title (or the sub-headings) easily?	20	9,65	20	9,30	20	9,30	20	8,10	20	9,45

The findings of fifth item's analysis was not included in the table because the last item questioned whether there were any pictures disturbing, and participants were supposed to choose one of two options: 'Yes' and 'No'. Except one participant, all the

participants stated that there were not any pictures disturbing them in any texts. Only one participant chose 'Yes' for the picture in the second text, so the second text was not included in the study because of its getting negative feedback. Considering both the results obtained through the checklist and feedback of the expert, Text 1, Text 3 and Text 5 were determined to be used in eye tracking sessions. Moreover, it should be noted that the selection was made considering Flesch Reading Ease scores and Flesch-Kincaid Reading Ages of the texts, too (See Table 3.6. for the readability scores of the selected texts). The texts are displayed in Figures 3.1., 3.2. and 3.3. respectively.

TECH FREE! by Sam Winton

Home Blog Follow me

[1]**Have you ever wondered what it would be like to give up technology? I'm a TV journalist and I spend a lot of my working life in front of a computer or a TV. I decided to conduct my own private experiment: I would spend a day trying to manage without technological devices. What a scary thought!**

[2]The first thing I usually do every day is reach for my smartphone to check the time and read any messages or emails. But I'd locked it away in a drawer the night before. Already I was feeling very cut off from the world, and it was only … actually, I had no idea what time it was!

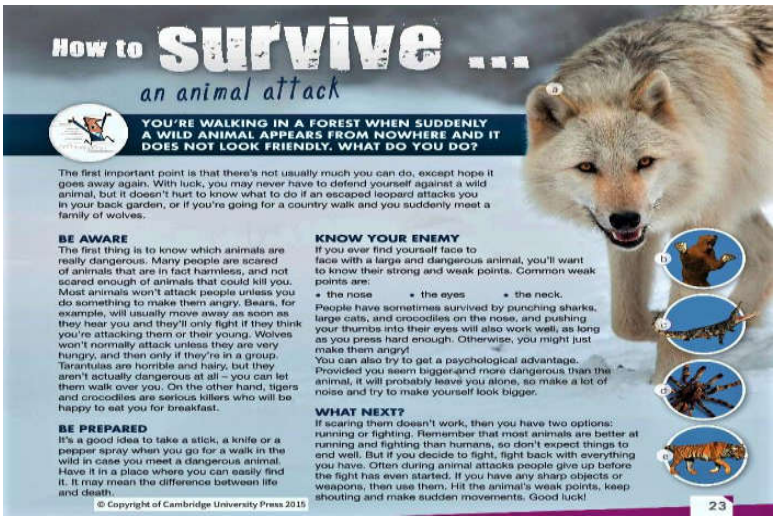
[3]After breakfast, I needed to get some cash. Inevitably, this meant a trip to the bank because cash points are technological devices. I had to queue, but I had a very nice conversation with a woman whilst I was waiting. Not surprisingly, the bank teller thought I was a bit strange withdrawing money this way. I think she thought I was a robber!

[4]Then it was on to the supermarket. You may be wondering what's technological about that. Well, I had to make sure I avoided the self-service check-out and joined the queue for a normal one – with a real person. Naturally, it took longer, but I had a great chat with the guy who served me, and he told me about a new club that is opening up nearby. Would I have found out about that if I'd gone to the self-service check-out? No.

[5]Afterwards, I came home to have a go at writing a news story by hand. Strangely, I found it easier to concentrate on my writing. But my hand and fingers got really sore! And I have to confess – by this stage, I was having to make a real effort not to get my phone out and check my messages. I was starting to wonder what my friends were doing. Maybe they were making plans to go to that new club, and I would never know!

[6]All in all, I wouldn't say I could live without technology. Predictably, I really missed my phone all day. The worst part was not being able to check updates in the news or from my friends. I felt very out of touch. However, I kept to my promise of a tech-free day and I did have more face-to-face interaction. Undoubtedly, it made me realise just how addicted to technology we all are.

Figure 3.1. *Text 1 (Cambridge University Press, 2015)*



How to **survive** ... an animal attack

YOU'RE WALKING IN A FOREST WHEN SUDDENLY A WILD ANIMAL APPEARS FROM NOWHERE AND IT DOES NOT LOOK FRIENDLY. WHAT DO YOU DO?

The first important point is that there's not usually much you can do, except hope it goes away again. With luck, you may never have to defend yourself against a wild animal, but it doesn't hurt to know what to do if an escaped leopard attacks you in your back garden, or if you're going for a country walk and you suddenly meet a family of wolves.

BE AWARE

The first thing is to know which animals are really dangerous. Many people are scared of animals that are in fact harmless, and not scared enough of animals that could kill you. Most animals won't attack people unless you do something to make them angry. Bears, for example, will usually move away as soon as they hear you and they'll only fight if they think you're attacking them or their young. Wolves won't normally attack unless they are very hungry, and then only if they're in a group. Tarantulas are horrible and hairy, but they aren't actually dangerous at all – you can let them walk over you. On the other hand, tigers and crocodiles are serious killers who will be happy to eat you for breakfast.

BE PREPARED

It's a good idea to take a stick, a knife or a pepper spray when you go for a walk in the wild in case you meet a dangerous animal. Have it in a place where you can easily find it. It may mean the difference between life and death.

KNOW YOUR ENEMY

If you ever find yourself face to face with a large and dangerous animal, you'll want to know their strong and weak points. Common weak points are:

- the nose
- the eyes
- the neck.

People have sometimes survived by punching sharks, large cats, and crocodiles on the nose, and pushing your thumbs into their eyes will also work well, as long as you press hard enough. Otherwise, you might just make them angry!

You can also try to get a psychological advantage. Provided you seem bigger and more dangerous than the animal, it will probably leave you alone, so make a lot of noise and try to make yourself look bigger.

WHAT NEXT?

If scaring them doesn't work, then you have two options: running or fighting. Remember that most animals are better at running and fighting than humans, so don't expect things to end well. But if you decide to fight, fight back with everything you have. Often during animal attacks people give up before the fight has even started. If you have any sharp objects or weapons, then use them. Hit the animal's weak points, keep shouting and make sudden movements. Good luck!

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Figure 3.2. *Text 3 (Cambridge University Press, 2015)*

GOLDEN DREAMS & GOLDEN GIRLS!

Too many people never realise their dreams, listing instead all the reasons why they cannot achieve them. Not so for three remarkable American women who never gave up on their dreams. Their stories tell us that you should never give up and you're never too old to make your dream come true.

DIANA NYAD – DON'T STOP SWIMMING!

On September 1, 2013, Diana Nyad became the first person to swim successfully the treacherous Florida Straits, a 177 km passage from Cuba to Florida, without the protection of a shark cage. She was 64 years old.

When she was in her twenties, Diana was already a famous long-distance swimmer, but she retired in 1979. During her early career, Diana had one unsuccessful swim: her attempt to swim from Cuba to Florida in 1978 ended after 42 hours in the water. Although she got on with her life, this unrealised dream remained in the back of her mind.

In early 2010, she turned 60 and decided it was time to pursue her dream again. She began training and, in August 2011, she entered the water to try again 33 years after she first tackled this challenging swim. However, she faced strong winds and sea currents and had to give up after 29 hours in the water.

She tried again a month later, but still wasn't successful. She waited until the following year for her fourth attempt, but pain from jellyfish stings forced her to give up. Her fifth attempt began on 31st August 2013. After 53 hours in the water, she reached Florida and set a new world record.

It was an incredible achievement, not only physically, but emotionally and mentally as well, but in the words of Diana, 'Find a way. Never, ever give up.'

BARBARA JOE – PEACE GAVE HER A CHANCE

At 73, Barbara Joe still remembers hearing President Kennedy announcing the creation of the Peace Corps, a volunteer programme to provide economic and social aid to people in developing countries. Barbara Joe was 23 years old and the idea immediately appealed to her. But she was already married, completing a degree, and she would soon have her own family.

Over the years, Barbara did occasional volunteer work and visited many developing countries in South America. However, it wasn't until 1998 that she told herself it was now or never. She finally became a full-time volunteer and joined the Peace Corps. She was 60.

The Peace Corps has no upper age limit, but volunteers are often young. The selection process is rigorous and only one applicant in ten is accepted. Barbara was by far the oldest person on her training course.

Barbara was a Peace Corps volunteer in Honduras for three and a half years and in that time she taught locals about Aids prevention, handed out medications and even helped deliver a few babies. Her daughter went to visit her during her stay. She was surprised to see how happy her mother was and how well she coped with the primitive living conditions.

Barbara has since written a book about her experience. She thinks you're never too old to volunteer. 'You are never too old to follow your dreams,' she says. 'It's never too late to reinvent yourself.'

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Figure 3.3. *Text 5 (Cambridge University Press, 2015)*

Table 3.6. *Readability scores of the texts utilized in eye tracking*

Text	Flesch Reading Ease Score	Flesch-Kincaid Reading Age
First Text (Text 3)	72,4	7,1
Second Text (Text 1)	76,8	6,9
Third Text (Text 5)	71,2	8,2

When the texts in reading comprehension tests and the ones in eye tracking are compared in terms of RE and FKRA, it is seen that the texts utilized in eye tracking are easier. However, it should be stated that in fact, it was done so intentionally, because if the texts in eye tracking had been more difficult and longer or included more unknown words, the participants might have focused on unknown vocabulary items or

challenging grammar points and smooth reading might have been interrupted. To be more precise, since the aim was to investigate whether the participants utilized global reading strategies while reading, not to examine how they cope with unknown vocabulary or grammatical points, the texts were chosen considering their not being very challenging.

As a result, Text 3 were chosen to be used firstly. Then, in the second data collection, Text 1 was utilized and lastly, Text 5 was used in the third data collection. It should be pointed out that there was not a specific purpose in deciding in which order the texts would be used because they were selected randomly by taking the experts' opinions.

3.2.4.2. *Apparatus and how eye tracking works*

In the eye tracking sessions, GP3 eye tracker with 60hz speed was utilized (See Figure 3.4.). GP3 can register a sample in every 16 milliseconds with 0.5-1 degree of visual angle accuracy and 25 cm (horizontal) x 11 cm (vertical) head movement flexibility.

Figure 3.4. *Apparatus (http-4)*

Throughout the eye tracking sessions, the same procedure was followed for each participant:

1. Firstly, the participant sits in front of the screen (See Figure 3.5.). He should be so close to the screen or so far from the screen. From the screen open to the

researcher, the optimum distance can be adjusted. The green notification on the screen ensures that the optimum distance is fulfilled.

2. Once the participant sits in an ideal position, two-phased calibration needs to be conducted. Firstly, the participant is asked to follow the red dots appearing on the screen (See Figure 3.6.). Secondly, the researcher wants the participant to direct their eyes to one circle at a time (See Figure 3.7.). The focal point is changed three or four times and similarly, the participant is asked to look at the point directly, which is performed to ensure that eye movements of the participant is detected by the eye tracker properly.

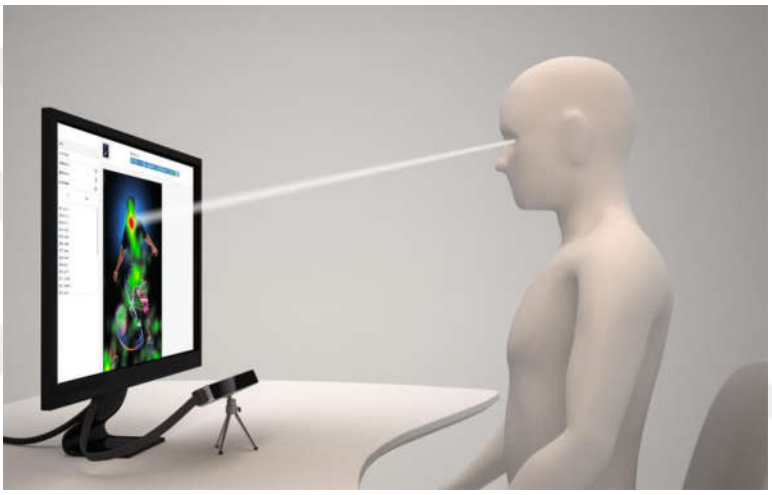

Figure 3.5. *The Optimum Sitting Position (http-5)*

Figure 3.6. *The First Calibration Phase (http-5)*

Figure 3.7. *The Second Calibration Phase (http-6)*

3.3. Data Collection Procedure

The present study was carried out for subsequent 10 weeks. In order to investigate the effect of strategy training, conducted through reciprocal teaching, data were collected three times and in each data collection, participants were supposed to take a reading comprehension test, participate in the think-aloud protocol and eye tracking session. However, only for Metacognitive Awareness of Reading Strategies Inventory, the data were collected twice – that is to say, the inventory was administered before the study started and after the study completed.

Additionally, as indicated in Table 3.7., the participants were informed about the think-aloud protocols and eye tracking previously. The purpose was to ensure that the participants were well aware of the procedure as well as how the data would be collected. They were first informed about the data collection process in think-aloud protocols, namely what think-aloud protocols are, how they would perform the think-aloud protocols and what the challenges of these protocols could be. Certain short articles giving information about the procedure of think-aloud protocols and videos showing how they are conducted were given to the participants.

Furthermore, with regard to eye tracking, the eye-tracking device, the appropriate sitting position and how eye tracking works were also told to the participants. however, nearly all the participants participated in an eye-tracking study before, so they had already known the cruxes of eye tracking.

Table 3.7. displays the procedure followed throughout the present study:

Table 3.7. *Procedure of the study*

Week 1	• Deciding on the participants • Informing the participants about the overall procedure of the study, reciprocal teaching, eye tracking and think-aloud protocols • Gathering the consent forms • Administrating the participants' background and demographic information questionnaire
Week 2	• Administration of MARSI • Eye tracking data collection (1st) • Administration of the first reading comprehension test • Think-aloud protocol (1st)
Week 3	• Training (2 sessions in a week, each session will last 50 minutes)
Week 4	• Training (2 sessions in a week, each session will last 50 minutes)
Week 5	• Training (2 sessions in a week, each session will last 50 minutes)
Week 6	• Eye tracking data collection (2nd) • Administration of the second reading comprehension test • Think-aloud protocol (2nd)
Week 7	• Training (2 sessions in a week, each session will last 50 minutes)
Week 8	• Training (2 sessions in a week, each session will last 50 minutes)
Week 9	• Training (2 sessions in a week, each session will last 50 minutes)
Week 10	• Administration of MARSI • Eye tracking data collection (3rd) • Administration of the third reading comprehension test • Think-aloud protocol (3rd)

3.4. Lesson Plan Utilized throughout Trainings

Considering the reciprocal teaching procedure displayed in Chapter 2, a lesson plan (See Appendix I) was prepared by the researcher taking opinions and feedback of the experts. However, in addition to paying special attention to reciprocal teaching procedure, much emphasis was also placed on global reading strategies. More precisely, in fact, in reciprocal teaching, only four main strategies are utilized while comprehending a text, but global reading strategies cover 11 strategies. Even though the four strategies overlap these 11 strategies, it is needed to plan certain specific activities to enhance participants' use of global reading strategies. Therefore, besides the

objectives related to predicting, questioning, clarifying, and summarizing, three objectives were determined with the aim of improving use of global reading strategies, too. Accordingly, the activities were designed to fulfil these objectives.

The same lesson plan was used during the whole study, yet in every training session, a different text was chosen and utilized. The texts were selected from the following course books: *Macmillan Education Effective Reading 4 Upper Intermediate (2010)*, *Cambridge University Press Complete IELTS Bands 5 – 6,5 (2012)*, *Cambridge University Press Objective Proficiency (2013)*, and *Cambridge University Press Prism Level 4 Reading & Writing (2017)*. To decide on the texts to be used in trainings, the interests, opinions and feedback of the participants as well as experts' opinions were considered. Additionally, readability scores of the texts (See Appendix E) were also calculated and texts were included in the training sessions once positive results had been obtained.

3.5. Data Analysis

In the present study, both qualitative and quantitative data analyses were required. The Statistical Package for Social Sciences (SPSS) Version 24.0 was used to analyse quantitative data. Descriptive statistics were calculated and displayed in tables for all the data collection instruments, except the think-aloud protocols.

Regarding the results of MARSI, to indicate the impact of the strategy training on the participants' metacognitive awareness and perceived use of global reading strategies, a paired samples t-test was run. The reason why the paired samples t-test was chosen as the way of analysis can be explained through the participants' being a homogenous group. Moreover, the reliability of the inventory was calculated and Cronbach's alpha results were displayed as well.

As for the findings related to eye tracking and reading comprehension tests, a one-way ANOVA with repeated measures was computed for each variable. Furthermore, descriptive statistics were indicated to provide clear pictures of the results.

On the other hand, for the analysis of qualitative data collected through think-aloud protocols, the coding scheme utilized in Salatacı and Akyel's (2002) study was used. However, in accordance with the aims of the present study, certain modifications were made on the coding scheme (See Appendix F for the modified version). In order to achieve interrater reliability, the think-aloud data were analysed by an expert, too. The

reliability of the findings was calculated computing Krippendorff 's Alpha-Reliability, and the results of the computation revealed a high reliability ($\alpha = .82$). Krippendorff 's Alpha-Reliability was selected so as to determine whether or not the findings were reliable because this method can be used for any type of data and any number of examiners, and it is applicable to be utilized within SPSS (Lombard, Snyder-Duch, & Campanella, 2005).

4. RESULTS AND DISCUSSION

4.1. Introduction

In this chapter, the findings of the present study are presented and discussed in the light of the related research studies. Considering the research questions and the data collection instruments, the results are displayed under five headings as follows:

1. Analysis of Metacognitive Awareness of Reading Strategies Inventory (MARSI)
2. Analysis of Reading Comprehension Tests
3. Analysis of Eye Tracking Data
4. Analysis of Think-Aloud Protocols
5. Relationships among MARSI, Eye Tracking Findings, Reading Comprehension Tests, and Think-Aloud Protocols

4.2. RQ1: Analysis of Metacognitive Awareness of Reading Strategies Inventory

The purpose of administering Metacognitive Awareness of Reading Strategies Inventory (MARSI) (Mokhtari and Reichard, 2002) was to explore to what extent the participants were aware of global reading strategies and what the participants' perceived use of global reading strategies was. Furthermore, with the aim of examining the effect of strategy training on the participants' metacognitive awareness and perceived use of global reading strategies, the inventory was administered both in the second week and the tenth week, namely before the training started and after it was completed. At this point, it should be noted that only the items related to the global reading strategies were utilized in the current study. More precisely, the inventory consists of 30 items: 8 of them deal the problem-solving strategies, 9 items are concerned with support reading strategies, and 13 of the items examine the metacognitive awareness and perceived use of global reading strategies. Since the present research study was based specifically upon global reading strategies, the associated items were formed in a separate Word document, without making any modifications in the original format. The pre- and post-administrations of MARSI were conducted via that form. Therefore, the findings related to the other two types of reading strategies were not included, and because the numbering and order of the items were not changed, the items are not given in successive order.

Descriptive statistics were run to analyse the data obtained through the inventory individually, and besides, a paired samples t-test was conducted to compare the mean

scores of pre- and post-administration of MARSI in order to find out whether the training was helpful in developing learners' awareness and perceived use of global reading strategies. In the following table, descriptive statistics of the first and last MARSI administration are indicated.

Table 4.1. *Descriptive Statistics of the Items in MARSI*

	MARSI (Week 1)			MARSI (Week 10)		
	N	**Mean**	**SD**	**N**	**Mean**	**SD**
1. I have a purpose in mind when I read.	23	3,91	,900	23	4,26	,619
3. I think about what I know to help me understand what I read.	23	3,70	,822	23	4,04	,562
4. I preview the text to see what it's about before reading it.	23	3,74	1,137	23	4,09	,848
7. I think about whether the content of the text fits my reading purpose.	23	3,57	1,037	23	4,17	,576
10. I skim the text first by noting characteristics like length and organization.	23	3,09	1,443	23	4,04	,475
14. I decide what to read closely and what to ignore.	23	3,52	,994	23	4,13	,757
17. I use tables, figures, and pictures in text to increase my understanding.	23	2,96	1,461	23	4,13	,815
19. I use context clues to help me better understand what I'm reading.	23	3,57	1,237	23	4,22	,600
22. I use typographical aids like bold face and italics to identify key information.	23	3,52	1,504	23	4,30	,559
23. I critically analyze and evaluate the information presented in the text.	23	3,09	1,041	23	4,09	,733
25. I check my understanding when I come across conflicting information.	23	3,61	,988	23	4,09	,733
26. I try to guess what the material is about when I read.	23	3,96	,706	23	4,30	,559
29. I check to see if my guesses about the text are right or wrong.	23	3,61	1,438	23	4,48	,898

As displayed in Table 4.2., there was a noticeable improvement in the participants' metacognitive awareness and perceived use of global reading strategies after the training. The mean scores show that the participants had been aware of the fact that they employed certain strategies while reading a text in L2, yet the six-week reciprocal teaching instruction helped them raise more awareness regarding global reading strategies. For instance, the first mean score of the item 19 "I use context clues to help me better understand what I'm reading." was 3,57 but it was found to be 4,22 in the analysis of the post-administration. Similarly, the mean scores of the items "I skim the text first by noting characteristics like length and organization." and "I use tables, figures, and pictures in text to increase my understanding." suggest that the training was

useful for the betterment of the participants' metacognitive awareness as well as perceived use of global reading strategies.

To explore whether the increase in the mean scores was statistically significant or not, a paired samples t-test was run. Table 4.2. shows paired samples statistics and in Table 4.3., the results of the paired samples t-test are indicated to present a more detailed picture of the differences.

Table 4.2. *Paired Samples Statistics of MARSI Implementations*

	Mean	**N**	**SD**	**SEM**
First administration of MARSI	3,5013	23	,57512	,11992
Second administration of MARSI	4,1830	23	,35841	,07473

Table 4.3. *Paired Differences of MARSI Implementations*

	Paired Differences							
				95% Confidence Interval of the Difference				
	Mean	**SD**	**SEM**	**Lower**	**Upper**	**t**	**df**	**Sig. (2-tailed)**
Pre- and Post-Administration of MARSI	-,68174	,53700	,11197	-,91396	-,44952	-6,088	22	,000

As the results in Table 4.2. and Table 4.3. show, there is a statistically significant difference between pre-administration (M=3,5013, SD=,57512) and post-administration of MARSI (M=4,1830, SD=,35841) scores with regard to strategy training inventory ($t(22)$= -6,088, p<.001). Thus, it can be said that the strategy instruction, carried out through reciprocal teaching, was found to be useful for improving the participants' metacognitive awareness and perceived use of global reading strategies, which corroborated the findings of the other studies in the field as well (Ilustre, 2011; Zhang & Wu, 2009).

4.3. RQ2: Analysis of Reading Comprehension Tests

In addition to the aims addressing the betterment of metacognitive awareness and perceived use of global reading strategies, it was also aimed at developing the participants' reading comprehension skills because of the strategy training. Therefore,

to investigate to what extent the training affected their reading comprehension skills, the participants took three reading comprehension tests, in the second, sixth and tenth weeks. As it was mentioned previously, each test included a reading passage and four reading comprehension activities, i.e. three text-related standardized questions and one summary-writing activity.

The responses of the participants for the three questions except the summary-writing one were checked according to the answer sheet provided in the book. To check and score the summaries, IELTS TASK 1 Writing band descriptors were utilized (See Appendix J). The summaries were scored by both the researcher and an expert in order to ensure the reliability of the results (Krippendorff 's Alpha-Reliability was calculated as .81), and the arithmetic mean of the scores were then calculated. The overall score of the tests were calculated on the scale of 30 so as not to change the scoring rubric of the book. Table 4.4. presents the descriptive statistics of the three reading comprehension tests individually.

Table 4.4. *Descriptive Statistics of the Reading Comprehension Tests*

	N	Minimum	Maximum	Mean	SD
First Reading Comprehension Test	23	16	20	18,13	1,140
Second Reading Comprehension Test	23	15	23	18,83	1,969
Third Reading Comprehension Test	23	15	28	21,74	3,922

As displayed in Table 4.4., there was a gradual improvement in the scores of the participants. Therefore, in order to figure out whether the strategy training resulted in statistically significant improvements in the reading comprehension scores of the participants, a one-way ANOVA with repeated measures was conducted. Table 4.5. demonstrates its results.

Table 4.5. *The Effect of Training on Reading Comprehension Scores of the Participants*

Source		Type III Sum of Squares	df	Mean Square	F	Sig.
Training	Sphericity Assumed	168,609	2	84,304	18,480	,000
	Greenhouse-Geisser	168,609	1,256	134,275	18,480	,000
	Huynh-Feldt	168,609	1,296	130,117	18,480	,000
	Lower-bound	168,609	1,000	168,609	18,480	,000
Error (Training)	Sphericity Assumed	200,725	44	4,562		
	Greenhouse-Geisser	200,725	27,625	7,266		
	Huynh-Feldt	200,725	28,508	7,041		
	Lower-bound	200,725	22,000	9,124		

As it was mentioned previously, a one-way ANOVA with repeated measures was conducted to compare the mean scores of three reading comprehension tests, conducted in the second, sixth and tenth weeks, in order to find out whether strategy training has an effect on reading comprehension. The findings revealed that there is a statistically significant difference (F(1,256, 27,625)= 18,480, p<.001) across the three tests (Sphericity assumption was not met, Greenhouse-Geiser results are reported). To detect where the significant difference occurred, pairwise comparisons with Bonferroni adjustment were calculated. The results indicated that while there is a statistically significant difference between the first reading comprehension test (M=18,13, SD=1,140) and the third reading comprehension test (M=21,74, SD=3,922), and between the second reading comprehension test (M=18,83, SD=1,969) and the third reading comprehension test (M=21,74, SD=3,922), there is not a significant difference between the first reading comprehension test and the second reading comprehension test.

Even though no significant difference was found between the first and second reading comprehension tests, the finding, showing that the third reading comprehension test scores of the participants were relatively higher than those of the first and the second, was very encouraging for the current study. The reason why no significant difference was found between the first and second reading comprehension test can be explained through the time interval: the first test was conducted in the second week while the participants took the second one in the sixth week, so they had taken only three-week instruction and this period might not be long enough for them to improve their reading comprehension. Nevertheless, considering the statistically significant differences between the first and the second reading comprehension test, and between the second and the third reading comprehension test, it can be concluded that the strategy training was beneficial for improving L2 readers' reading comprehension skills. The results of the current research study regarding the advantage of the strategy training for the improvement of reading comprehension skills confirmed the findings of other research studies in the field as well (Salatacı & Akyel, 2002; Spörer, Brunstein, & Kieschk, 2009).

4.4. RQ3: Analysis of Eye Tracking Data

Basically, the aim of utilizing eye tracking in the present research study was to explore what was not told by the participants, and thus remained unknown. Because of the eye tracking technology, eye movements of the participants could be recorded and observed

naturally, which enabled the researcher to examine reading behaviours of the learners without any exterior interventions. However, considering the global reading strategies, it can be said that it is impossible to investigate whether or not the participants employed all the strategies only through the eye tracking. Therefore, besides eye tracking, think-aloud protocols were also utilized as a data collection instrument to shed more light on the participants' use of global reading strategies.

To collect the eye tracking data, firstly, the strategies that can be examined using eye tracking were determined. These strategies include "previewing text for content", "skimming to note text characteristics", "using context clues", "using text structure", and "using other textual features". The strategy "previewing text for content" is closely related to the first step of reciprocal teaching, namely the predicting step. While making predictions about the content of the text and each paragraph, the participants were required to preview the text for initial understanding, so clarifying to what extent they performed previewing behaviour is very crucial in terms of determining the efficacy of the training. Similarly, taking the objectives and the activities included in the lesson plan into consideration, the findings showing the use of the strategy "skimming to note text characteristics" will be relatively critical for the evaluation of the instruction.

On the other hand, the other three strategies are also of great importance in order to comprehend a text fully and meaningfully. Readers are expected to utilize certain contextual clues (e.g. pictures, typographical aids such as bold face and italics, figures, and tables) both to increase their understanding and to identify key information given in the text. To investigate to what extent the participants used these strategies, three areas of interest were created in the analysis of eye tracking data: the title, images and the introductory paragraph. Basically, this formation was performed considering the components of a reading passage emphasized within global reading strategies and in the light of Prichard and Atkins's (2016) research study.

Figure 4.1., 4.2. and 4.3. demonstrate the screenshots for the areas of interest created for each text used in three eye tracking implementations. Even though the number of the images are not equal in all three passages, the analysis was performed adding the findings of each image and calculating the overall score considering the addend results.

By doing so, only one area of interest could be achieved, and the analyses were conducted in accordance with the findings obtained through the addition.

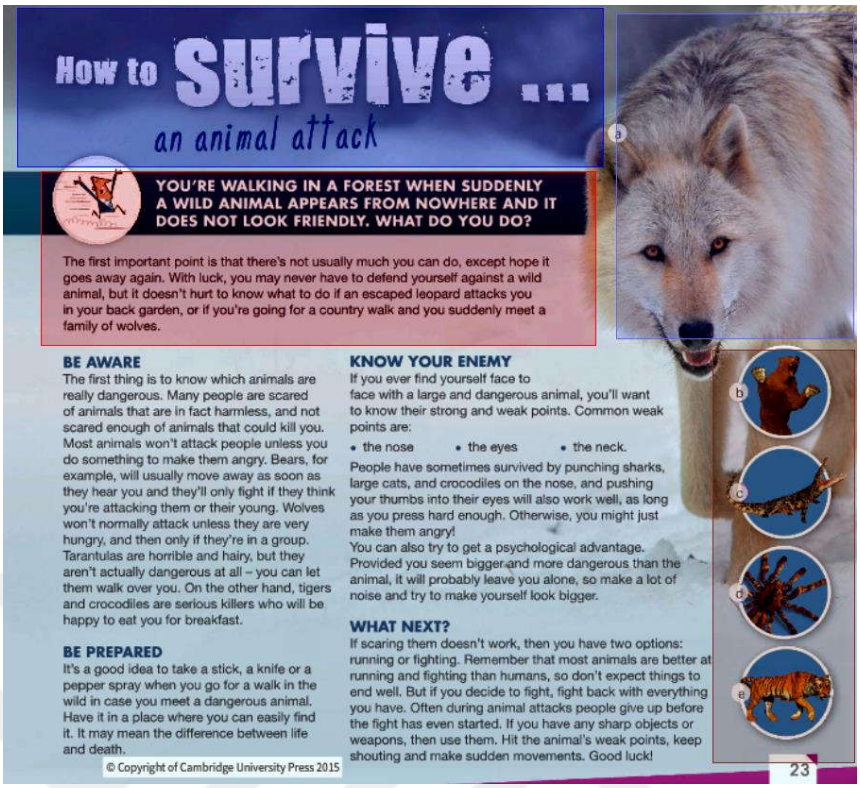

Figure 4.1. *The Areas of Interest Formed for the First Eye Tracking Text*

Figure 4.2. *The Areas of Interest Formed for the Second Eye Tracking Text*

GOLDEN DREAMS AND GOLDEN GIRLS!

Too many people never realise their dreams, listing instead all the reasons why they cannot achieve them. Not so for three remarkable American women who never gave up on their dreams. Their stories tell us that you should never give up and you're never too old to make your dream come true.

DIANA NYAD – DON'T STOP SWIMMING!

On September 1, 2013, Diana Nyad became the first person to swim successfully the treacherous Florida Straits, a 177 km passage from Cuba to Florida, without the protection of a shark cage. She was 64 years old.

When she was in her twenties, Diana was already a famous long-distance swimmer, but she retired in 1979. During her early career, Diana had one unsuccessful swim: her attempt to swim from Cuba to Florida in 1978 ended after 42 hours in the water. Although she got on with her life, this unrealised dream remained in the back of her mind.

In early 2010, she turned 60 and decided it was time to pursue her dream again. She began training and, in August 2011, she entered the water to try again 33 years after she first tackled this challenging swim. However, she faced strong winds and sea currents and had to give up after 29 hours in the water.

She tried again a month later, but still wasn't successful. She waited until the following year for her fourth attempt, but pain from jellyfish stings forced her to give up. Her fifth attempt began on 31st August 2013. After 53 hours in the water, she reached Florida and set a new world record.

It was an incredible achievement, not only physically, but emotionally and mentally as well, but in the words of Diana, 'Find a way. Never, ever give up.'

BARBARA JOE – PEACE GAVE HER A CHANCE

At 73, Barbara Joe still remembers hearing President Kennedy announcing the creation of the Peace Corps, a volunteer programme to provide economic and social aid to people in developing countries. Barbara Joe was 23 years old and the idea immediately appealed to her. But she was already married, completing a degree, and she would soon have her own family.

Over the years, Barbara did occasional volunteer work and visited many developing countries in South America. However, it wasn't until 1998 that she told herself it was now or never. She finally became a full-time volunteer and joined the Peace Corps. She was 60.

The Peace Corps has no upper age limit, but volunteers are often young. The selection process is rigorous and only one applicant in ten is accepted. Barbara was by far the oldest person on her training course.

Barbara was a Peace Corps volunteer in Honduras for three and a half years and in that time she taught locals about Aids prevention, handed out medications and even helped deliver a few babies. Her daughter went to visit her during her stay. She was surprised to see how happy her mother was and how well she coped with the primitive living conditions.

Barbara has since written a book about her experience. She thinks you're never too old to volunteer. 'You are never too old to follow your dreams,' she says. 'It's never too late to reinvent yourself.'

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Figure 4.3. *The Areas of Interest Formed for the Third Eye Tracking Text*

These areas of interest were determined as the keys to examine the participants' use of global reading strategies. Besides, to find out to what degree and how the participants utilized "previewing text for content", "skimming to note text characteristics", "using context clues", "using text structure", and "using other textual features" strategies, the following were recorded while the participants were reading the given texts.

- the number of total fixation duration, fixations and revisits on the title,
- the number of total fixation duration, fixations and revisits on the introductory paragraph,
- the number of total fixation duration, fixations and revisits on the images,
- the total number of fixations on the whole text.

However, additionally, all 69 recordings, i.e. all the eye tracking sessions, were examined after the implementation to figure out whether the participants employed

"previewing text for content" and "skimming to note text characteristics" strategies before starting linear reading of the text.

4.4.1. The title

The initial step of reciprocal teaching is looking at the title of the text. The teacher guides learners to have a look at the title and make predictions about the content of the text. By doing so, it is aimed at activating learners' background knowledge about the content, so they can pose certain questions about what they already know about the content and how they can benefit from that knowledge to increase their understanding. Therefore, analysing the number of total fixation duration, fixations and revisits on the title is important in drawing conclusions about the strategy "previewing text for content".

Table 4.6. *Descriptive Statistics of the Total Fixation Duration, Fixations and Revisits on the Title*

	N	Minimum	Maximum	Mean	SD
The Total Fixation Duration in the First Eye Tracking Implementation	23	,00	17,56	3,3038	4,06809
The Fixations in the First Eye Tracking Implementation	23	,00	67,00	13,9565	15,08605
The Revisits in the First Eye Tracking Implementation	23	,00	34,00	6,5652	7,78592
The Total Fixation Duration in the Second Eye Tracking Implementation	23	,46	20,24	5,3062	4,99478
The Fixations in the Second Eye Tracking Implementation	23	4,00	81,00	24,3478	18,22488
The Revisits in the Second Eye Tracking Implementation	23	2,00	56,00	17,6522	12,80131
The Total Fixation Duration in the Third Eye Tracking Implementation	23	3,22	13,34	7,3572	2,77003
The Fixations in the Third Eye Tracking Implementation	23	15,00	60,33	34,3182	11,85292
The Revisits in the Third Eye Tracking Implementation	23	7,00	46,00	24,5455	11,50042

It can be seen that there is a gradual increase in the total time viewed, i.e. the total fixation duration, fixations and revisits on the title, which can be a supportive outcome regarding use of reciprocal teaching for facilitating the use of global reading strategies. Therefore, one-way ANOVA with repeated measures analyses were carried out to compare the mean scores of total fixation duration, fixations and revisits on the title, so

as to find out whether the strategy training has an effect on the time spent on the title. Table 4.7. displays the results of the one-way ANOVA with repeated measures.

Table 4.7. *The Effect of Training on the Total Fixation Duration, Fixations and Revisits on the Title*

		Total Fixation Duration				
Source		**Type III Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
Training	Sphericity Assumed	177,500	2	88,750	6,694	,003
	Greenhouse-Geisser	177,500	1,451	122,296	6,694	,008
	Huynh-Feldt	177,500	1,531	115,931	6,694	,007
	Lower-bound	177,500	1,000	177,500	6,694	,007
Error (Training)	Sphericity Assumed	556,805	42	13,257		
	Greenhouse-Geisser	556,805	30,479	18,268		
	Huynh-Feldt	556,805	32,153	17,318		
	Lower-bound	556,805	21,000	26,515		
		Fixations				
Source		**Type III Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
Training	Sphericity Assumed	4442,030	2	2221,015	11,138	,000
	Greenhouse-Geisser	4442,030	1,445	3074,417	11,138	,001
	Huynh-Feldt	4442,030	1,523	2916,251	11,138	,001
	Lower-bound	4442,030	1,000	4442,030	11,138	,003
Error (Training)	Sphericity Assumed	8375,451	42	199,416		
	Greenhouse-Geisser	8375,451	30,342	276,039		
	Huynh-Feldt	8375,451	31,987	261,838		
	Lower-bound	8375,451	21,000	398,831		
		Revisits				
Source		**Type III Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
Training	Sphericity Assumed	5775,545	2	2887,773	28,560	,000
	Greenhouse-Geisser	5775,545	1,775	3254,497	28,560	,000
	Huynh-Feldt	5775,545	1,927	2997,598	28,560	,000
	Lower-bound	5775,545	1,000	5775,545	28,560	,000
Error (Training)	Sphericity Assumed	4246,751	42	101,113		
	Greenhouse-Geisser	4246,751	37,267	113,954		
	Huynh-Feldt	4246,751	40,461	104,959		
	Lower-bound	4246,751	21,000	202,226		

As displayed in Table 4.7., a statistically significant difference (F(1,451, 30,479)= 6,694, p<.05) across the three eye tracking implementations, in terms of the total fixation duration on the title, was found (Sphericity assumption was not met, Greenhouse-Geiser results are reported). To detect where the significant difference occurred, pairwise comparisons with Bonferroni adjustment were calculated. The results indicated that there is a statistically significant difference between the first eye tracking implementation *(M*=3,3412, *SD*=4,15978) and the third eye tracking implementation (*M*=7,3572, *SD*=2,77003), yet there are not significant differences between the first eye tracking implementation and the second eye tracking implementation, and between the second eye

tracking implementation and the third eye tracking implementation. Regarding the number of fixations on the title, the findings revealed that there is a statistically significant difference (F(1,445, 30,342)= 11,138, p<.05) across the time points of eye tracking implementations (Sphericity assumption was not met, Greenhouse-Geiser results are reported). To discover between which implementations there is a statistically significant difference, pairwise comparisons with Bonferroni adjustment were calculated. The results showed that there is a statistically significant difference between the first eye tracking implementation (M=14,2273, SD=15,38376) and the third eye tracking implementation (M=34,3182, SD=11,85292), and between the second eye tracking implementation (M=24,6364, SD=18,59991) and the third eye tracking implementation (M=34,3182, SD=11,85292), but there is not a statistically significant difference between the first eye tracking implementation and the second eye tracking implementation. Lastly, with regard to the revisits on the title, it was found that there is a statistically significant difference across the three eye tracking implementations (F(2, 42)= 28,560, p<.001). To determine where the significant difference existed, post hoc tests using the Bonferroni correction were computed. The findings showed that there are significant differences between the first eye tracking implementation (M=6,7727, SD=7,90378) and the second eye tracking implementation (M=17,8182, SD=13,07719), between the first eye tracking implementation (M=6,7727, SD=7,90378) and the third eye tracking implementation (M=29,6818, SD=11,69700), and the second eye tracking implementation (M=17,8182, SD=13,07719) and the third eye tracking implementation (M=29,6818, SD=11,69700).

It can be concluded from the above-reported findings that at the end of the strategy instruction, there is an apparent improvement in the time spent on the title. The participants looked at the title for a longer time during the last eye tracking implementation, and the results of the fixations indicated that they directed their eyes towards the title gradually more. Additionally, the findings showed that relook behaviour of the participants improved in a gradual way. Considering the importance of the title in the reciprocal teaching procedure, the results can be interpreted as positive outcomes regarding the efficacy of the training in developing L2 readers' use of "previewing text for content", "using context clues", "using text structure", and "using other textual features" strategies. Because the title itself can give clues about the content of a text, it is important for readers to utilize it as an aid while comprehending the text. Moreover, approaching the title as a clue activating the prior knowledge can be useful for the comprehension process. Thus, once learners have

discovered how they can use that clue profitably, they will be able to make L2 reading process more meaningful and easier (Rinehart, Gerlach, Wisell, & Welker, 1998, p. 276).

4.4.2. The introductory paragraph

The second area of interest was created to analyse the total fixation duration, fixations and revisits on the introductory paragraph. If utilized in an effective manner, the introductory paragraph can serve another critical comprehension aid because it is actually a brief and to the point summary of the text. Thus, analyses carried out to find out whether there is an improvement in the total fixation duration, fixations and revisits on the introductory paragraph might say a lot about the participants use of "using context clues" and "using other textual features" strategies. Table 4.8. displays descriptive statistics of the total fixation duration, fixations and revisits on the introductory paragraph. Besides descriptive statistics, the results of the one-way ANOVA with repeated measures are also presented to clarify if the strategy has any effects on the above-mentioned factors.

Table 4.8. *Descriptive Statistics of the Total Fixation Duration, Fixations and Revisits on the Introductory Paragraph*

	N	Minimum	Maximum	Mean	SD
The Total Fixation Duration in the First Eye Tracking Implementation	23	,29	34,73	18,7216	8,51375
The Fixations in the First Eye Tracking Implementation	23	2,00	108,00	57,4348	25,12664
The Revisits in the First Eye Tracking Implementation	23	1,00	58,00	21,4783	15,98257
The Total Fixation Duration in the Second Eye Tracking Implementation	23	6,44	33,78	17,4191	6,85014
The Fixations in the Second Eye Tracking Implementation	23	30,00	99,00	58,1304	19,98933
The Revisits in the Second Eye Tracking Implementation	23	7,00	50,00	20,5217	12,20979
The Total Fixation Duration in the Third Eye Tracking Implementation	23	5,62	38,18	15,0994	7,90499
The Fixations in the Third Eye Tracking Implementation	23	24,00	116,00	57,1818	24,34403
The Revisits in the Third Eye Tracking Implementation	23	7,00	78,00	34,6818	17,19465

It can be concluded from the results displayed in Table 4.8. that there is not an increase in the total time the participants spent viewing and comprehending the introductory paragraph. However, it can be seen that there are fluctuations in the

numbers of the total fixation duration, fixations and revisits. Thus, in order to figure out to what degree these changes are statistically significant, one-way ANOVA with repeated measures analyses were conducted for each factor. Table 4.9. demonstrates the findings of the one-way ANOVA analyses.

Table 4.9. *The Effect of Training on the Total Fixation Duration, Fixations and Revisits on the Introductory Paragraph*

			Total Fixation Duration			
Source		**Type III Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
Training	Sphericity Assumed	153,686	2	76,843	2,070	,139
	Greenhouse-Geisser	153,686	1,688	91,041	2,070	,148
	Huynh-Feldt	153,686	1,820	84,466	2,070	,144
	Lower-bound	153,686	1,000	153,686	2,070	,165
Error (Training)	Sphericity Assumed	1559,384	42	37,128		
	Greenhouse-Geisser	1559,384	35,450	43,988		
	Huynh-Feldt	1559,384	38,210	40,811		
	Lower-bound	1559,384	21,000	74,256		
			Fixations			
Source		**Type III Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
Training	Sphericity Assumed	8,848	2	4,424	,013	,987
	Greenhouse-Geisser	8,848	1,721	5,141	,013	,978
	Huynh-Feldt	8,848	1,860	4,756	,013	,983
	Lower-bound	8,848	1,000	8,848	,013	,909
Error (Training)	Sphericity Assumed	13840,485	42	329,535		
	Greenhouse-Geisser	13840,485	36,147	382,899		
	Huynh-Feldt	13840,485	39,070	354,247		
	Lower-bound	13840,485	21,000	659,071		
			Revisits			
Source		**Type III Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
Training	Sphericity Assumed	2541,303	2	1270,652	9,606	,000
	Greenhouse-Geisser	2541,303	1,787	1422,493	9,606	,001
	Huynh-Feldt	2541,303	1,942	1308,927	9,606	,000
	Lower-bound	2541,303	1,000	2541,303	9,606	,005
Error (Training)	Sphericity Assumed	5555,364	42	132,271		
	Greenhouse-Geisser	5555,364	37,517	148,077		
	Huynh-Feldt	5555,364	40,772	136,255		
	Lower-bound	5555,364	21,000	264,541		

As displayed in Table 4.9., the results indicated that there is not a statistically significant difference across the three eye tracking implementations ($F(2, 42)=2,070$, $p=,139$) in terms of the total fixation duration. Similarly, as for the number of fixations, no statistically significant difference was found ($F(2, 42)=,013$, $p=,987$). However, the analysis of the last factor, i.e. the number of revisits, revealed a statistically significant difference across the time points of eye tracking implementations ($F(2, 42)=9,606$,

p<.001). Post hoc tests using the Bonferroni correction showed that there is a statistically significant difference between the first eye tracking implementation (*M*=22,2273, *SD*=15,94016) and the third eye tracking implementation (*M*=34,6818, *SD*=17,19465), and between the second eye tracking implementation (*M*=20,9091, *SD*=12,35163) and the third eye tracking implementation (*M*=34,6818, *SD*=17,19465), but there is not a statistically significant difference between the first eye tracking implementation and the second eye tracking implementation, which was similar to the findings of reading comprehension tests. And, it can be explained with the time interval (Spörer et al., 2009, pp. 279-282) because, after the six-week strategy training, the relook behaviour of the participants improved significantly. Hence, it can be concluded that the process should be long enough to let learners internalise reading strategies properly.

Even though no statistically significant differences were found with regard to the total fixation duration and the number of fixations, the results of the last factor's analysis, i.e. the number of revisits, showed that the participants utilized the introductory paragraph again revisiting and re-reading it. It can be concluded from this finding that the participants started reading the text without attaching much importance to the introductory paragraph, but when encountering something problematic or unclear, they preferred coming back to the introductory paragraph. In the clarifying step of the reciprocal teaching, the participants focused on finding answers for their questions in order to comprehend the text better and more effective, which can be easily achieved utilizing the introductory paragraph as a comprehension aid because the introductory paragraphs may give useful clues about the texts. And, when viewed from this aspect, this result can be interpreted as an encouraging finding regarding the participants use of "using context clues", "using text structure", and "using other textual features" strategies (Bishop et al., 2006, pp. 67-69; Mokhtari & Reichard, 2002, pp. 255-258).

4.4.3. The images

Considering the three texts utilized in the current study, it can be seen that certain images are included in the texts, so the participants might find clues about the content of the texts because of them since the images can be regarded as the most apparent context clues given in a passage (O'Neil, 2011, p. 222). For instance, in the first passage, there are the images of five animals, which may help the participants find clues about the

animals' physical features. The second passage is in the form of a blog post and it also includes a photo of the author, which may give clues about the wording of the text and accordingly, activate the participants' background knowledge. On the other hand, the third text includes the photos of two women presented in the text. If the participants are acquainted with these two women, they can remember what they have already known about them, and this can facilitate the reading process. However, unless they have any previous information about the women, they can also find certain clues from their outfits displaying sayings about their life stories.

In this section, both descriptive statistics and the results of one-way ANOVA analyses are presented to figure out whether or not the strategy instruction has brought about any changes in the total fixation duration and the number of fixations and revisits on the images. Table 4.10. shows descriptive statistics of the total fixation duration, fixations and revisits on the images.

Table 4.10. *Descriptive Statistics of the Total Fixation Duration, Fixations and Revisits on the Images*

	N	Minimum	Maximum	Mean	SD
The Total Fixation Duration in the First Eye Tracking Implementation	23	,00	4,82	1,0732	1,17767
The Fixations in the First Eye Tracking Implementation	23	,00	16,00	4,6364	4,38119
The Revisits in the First Eye Tracking Implementation	23	,00	13,00	1,9545	3,03122
The Total Fixation Duration in the Second Eye Tracking Implementation	23	,00	2,46	1,1078	,74776
The Fixations in the Second Eye Tracking Implementation	23	,00	12,00	4,5909	3,43177
The Revisits in the Second Eye Tracking Implementation	23	,00	9,00	1,9545	2,57233
The Total Fixation Duration in the Third Eye Tracking Implementation	23	1,44	12,86	6,4967	3,61229
The Fixations in the Third Eye Tracking Implementation	23	7,00	46,00	24,5455	11,50042
The Revisits in the Third Eye Tracking Implementation	23	4,00	35,00	16,8182	9,57992

Table 4.10. demonstrates both fluctuations and stability in the findings, especially in terms of the first and second eye tracking implementations. However, it can be seen that the participants utilized the images more and directed their gazes in the images for a longer time in the third eye tracking implementation. Therefore, a one-way ANOVA

with repeated measures was run for each factor, i.e. the total fixation duration, the number of fixations and the number of revisits, to investigate the effect of strategy training on the participants' use of "using context clues" strategy. In Table 4.11., the results of the one-way ANOVA with repeated measures analyses were displayed.

Table 4.11. *The Effect of Training on the Total Fixation Duration, Fixations and Revisits on the Images*

			Total Fixation Duration			
Source		**Type III Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
Training	Sphericity Assumed	428,669	2	214,335	48,150	,000
	Greenhouse-Geisser	428,669	1,148	373,394	48,150	,000
	Huynh-Feldt	428,669	1,172	365,912	48,150	,000
	Lower-bound	428,669	1,000	428,669	48,150	,000
Error (Training)	Sphericity Assumed	186,957	42	4,451		
	Greenhouse-Geisser	186,957	24,109	7,755		
	Huynh-Feldt	186,957	24,602	7,599		
	Lower-bound	186,957	21,000	8,903		
			Fixations			
Source		**Type III Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
Training	Sphericity Assumed	5826,758	2	2913,379	74,073	,000
	Greenhouse-Geisser	5826,758	1,169	4986,177	74,073	,000
	Huynh-Feldt	5826,758	1,196	4873,837	74,073	,000
	Lower-bound	5826,758	1,000	5826,758	74,073	,000
Error (Training)	Sphericity Assumed	1651,909	42	39,331		
	Greenhouse-Geisser	1651,909	24,540	67,314		
	Huynh-Feldt	1651,909	25,106	65,798		
	Lower-bound	1651,909	21,000	78,662		
			Revisits			
Source		**Type III Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
Training	Sphericity Assumed	3240,273	2	1620,136	56,781	,000
	Greenhouse-Geisser	3240,273	1,095	2958,449	56,781	,000
	Huynh-Feldt	3240,273	1,110	2918,970	56,781	,000
	Lower-bound	3240,273	1,000	3240,273	56,781	,000
Error (Training)	Sphericity Assumed	1198,394	42	28,533		
	Greenhouse-Geisser	1198,394	23,000	52,103		
	Huynh-Feldt	1198,394	23,312	51,408		
	Lower-bound	1198,394	21,000	57,066		

As shown in Table 4.11., regarding the total fixation duration, a statistically significant difference was found across the time points of eye tracking implementations (F(1,148, 24,109)=48,150, p<.001) (Sphericity assumption was not met, Greenhouse-Geiser results are reported). To detect between which implementations there is a statistically significant difference, pairwise comparisons with Bonferroni adjustment were calculated. The results showed that there is a statistically significant difference between the first eye tracking implementation (M=1,0732, SD=1,17767) and the third

eye tracking implementation (M=6,4967, SD=3,61229), and between the second eye tracking implementation (*M*=1,1078, *SD*=,74776) and the third eye tracking implementation (*M*=6,4967, *SD*=3,61229), but there is not a statistically significant difference between the first eye tracking implementation and the second eye tracking implementation. As for the number of fixations on the images, the findings revealed a statistically significant difference across three eye tracking implementations as well ($F(1,169, 24,540)=74,073$, $p<.001$) (Sphericity assumption was not met, Greenhouse-Geiser results are reported). To find out where the significance difference occurred, post hoc tests using the Bonferroni correction were computed. The findings indicated that there is a statistically significant difference between the first eye tracking implementation (*M*=4,6364, *SD*=4,38119) and the third eye tracking implementation (*M*=24,5455, *SD*=11,50042), and between the second eye tracking implementation (*M*=4,5909, *SD*=3,43177) and the third eye tracking implementation (*M*=24,5455, *SD*=11,50042). However, a statistically significant difference between the first eye tracking implementation and the second eye tracking implementation was not found. In terms of the final factor's analysis, the results showed that there is a statistically significant difference ($F(1,095, 23,000)=56,781$, $p<.001$) across three eye tracking implementations (Sphericity assumption was not met, Greenhouse-Geiser results are reported). Post hoc tests using the Bonferroni correction revealed that like the total fixation duration and the number of fixations, there is a statistically significant difference between the first eye tracking implementation (*M*=1,9545, *SD*=3,03122) and the third eye tracking implementation (*M*=16,8182, *SD*=9,57992), and between the second eye tracking implementation (*M*=1,9545, *SD*=2,57233) and the third eye tracking implementation (*M*=16,8182, *SD*=9,57992), yet there is not a statistically significant difference between the first eye tracking implementation and the second eye tracking implementation.

These findings may approve the effectiveness of the strategy training in improving the participants' use of "using context clues" strategy, which indeed means "using pictures, tables, and figures" (Mokhtari & Reichard, 2002) as contextual aids. Even though the reciprocal teaching does not include a specific step that directs learners to utilize such aids in order to increase their understanding, the sessions carried out in the present study were planned taking into account the global reading strategies as well (See Appendix I). More precisely, particular objectives were added and accordingly,

specific activities were included in the lesson plan. Therefore, considering the instruction and the additions, it can be concluded from the findings that the strategy training has facilitative effects on the use of "using context clues" strategy.

4.4.4. Previewing and skimming strategies

The above-mentioned findings revealed that there is an improvement in the participants' use of "using context clues", "using text structure", and "using other textual features" strategies because of the strategy training, conducted through reciprocal teaching. However, besides the three strategies, two other global reading strategies were determined as the strategies that can be examined utilizing eye tracking: "previewing text for content" and "skimming to note text characteristics". To figure out whether the participants employed these strategies and to what extent the training affected the use of these two strategies, all the eye tracking sessions were double-checked examining eye movements of the participants. By doing so, it was aimed at exploring if the participants skimmed or previewed the text before starting the linear reading.

To figure out whether or not there was an improvement, the number of fixations before the participants started the linear reading of the texts were calculated and a one-way ANOVA with repeated measures was run. Table 4.12. shows the associated findings.

Table 4.12. *The Effect of Training on the Number of Fixations on the Whole Text Before the Linear Reading*

Source		Type III Sum of Squares	df	Mean Square	F	Sig.
Training	Sphericity Assumed	12800,609	2	6400,304	15,874	,000
	Greenhouse-Geisser	12800,609	1,792	7141,865	15,874	,000
	Huynh-Feldt	12800,609	1,941	6594,750	15,874	,000
	Lower-bound	12800,609	1,000	12800,609	15,874	,000
Error (Training)	Sphericity Assumed	17740,058	44	403,183		
	Greenhouse-Geisser	17740,058	39,431	449,897		
	Huynh-Feldt	17740,058	42,703	415,432		
	Lower-bound	17740,058	22,000	806,366		

As shown in Table 4.12., the findings revealed that there is a statistically significant difference ($F(2, 44)=15,874$, $p<.001$) across the three tests. To detect where the significant difference occurred, pairwise comparisons with Bonferroni adjustment were calculated. The results indicated that while there is a statistically significant

difference between the total number of fixations on the first text before the linear reading (M=13,4783, SD=11,48069) and those of the second (M=42,1739, SD=22,77090), and between the total number of fixations on the first text before the linear reading (M=13,4783, SD=11,48069) and the total number of fixations on the third text before the linear reading (M=42,5652, SD=21,89817), there is not a significant difference between the total number of fixations upon the second and third passages before the linear reading. Even though this finding is not consistent with the findings of other areas of interest formed within eye tracking implementations, it can be explained through the early positive impact of the training on the use of "previewing text for content" and "skimming to note text characteristics" strategies (Prichard & Atkins, 2016, p. 125).

In parallel with the findings of think-aloud protocols, the eye tracking data indicated that the participants' use of "previewing text for content" and "skimming to note text characteristics" strategies improved gradually. These findings, hand in hand with the think-aloud protocols' results, can enable the drawing of inferences regarding the use of "previewing text for content" and "skimming to note text characteristics" strategies.

As it can be concluded from Figures 4.4., 4.5. and 4.6., there is a positive change in the participant's use of "previewing text for content" and "skimming to note text characteristics" strategies. In the first eye tracking implementation, the participant directed his attention only to the title and the introductory paragraph, and ignored the images. He also started linear reading without skimming the whole text. However, in the second implementation, it was recorded that the participant employed skimming strategy before the linear reading, namely before starting to read the whole text in a relatively straight manner. Additionally, as shown in Figure 4.5., the participant fixated the image as well as the title. Similarly, in the third eye tracking implementation, it was determined that the participant first previewed and skimmed the text, and then began to read. Besides utilizing previewing and skimming strategies, the participant also employed "using context clues" strategy as well since it was found that he directed his eyes towards the photos of the women and the title before the linear reading.

The following three figures represent different instances for the skimming behaviour of the same participant, respectively in the first, second, and third eye tracking implementation.

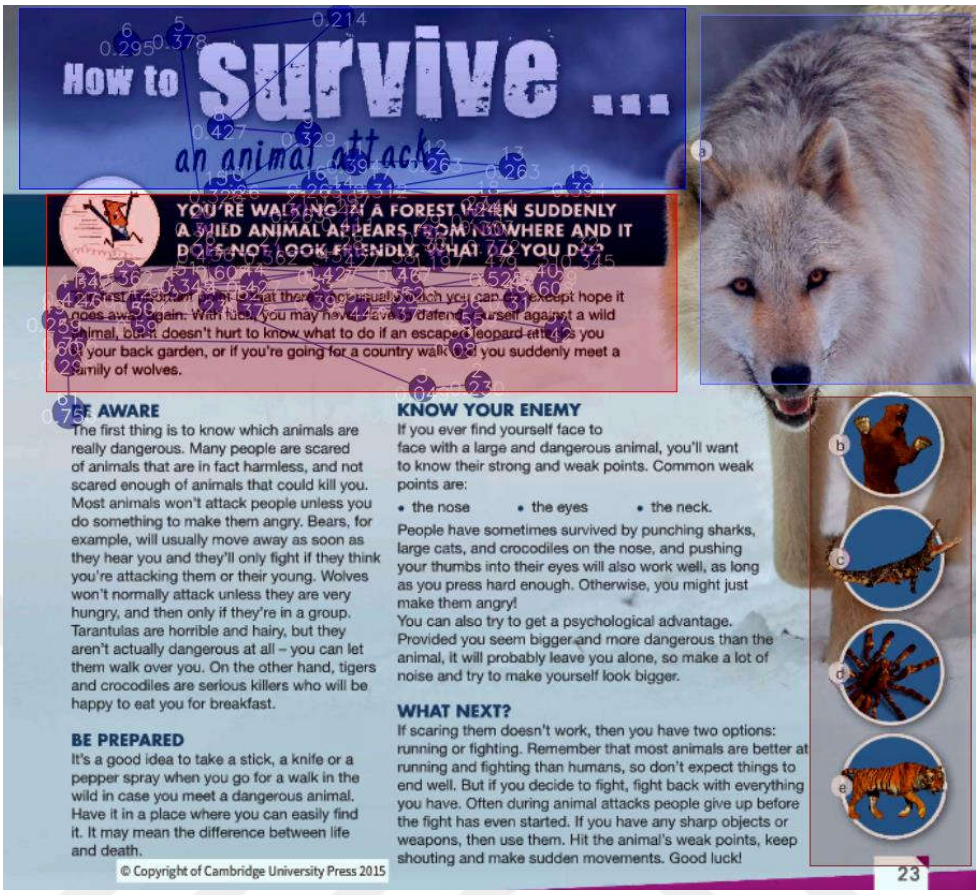

Figure 4.4. *Skimming Behaviour of Participant 21 in the First Eye Tracking Implementation*

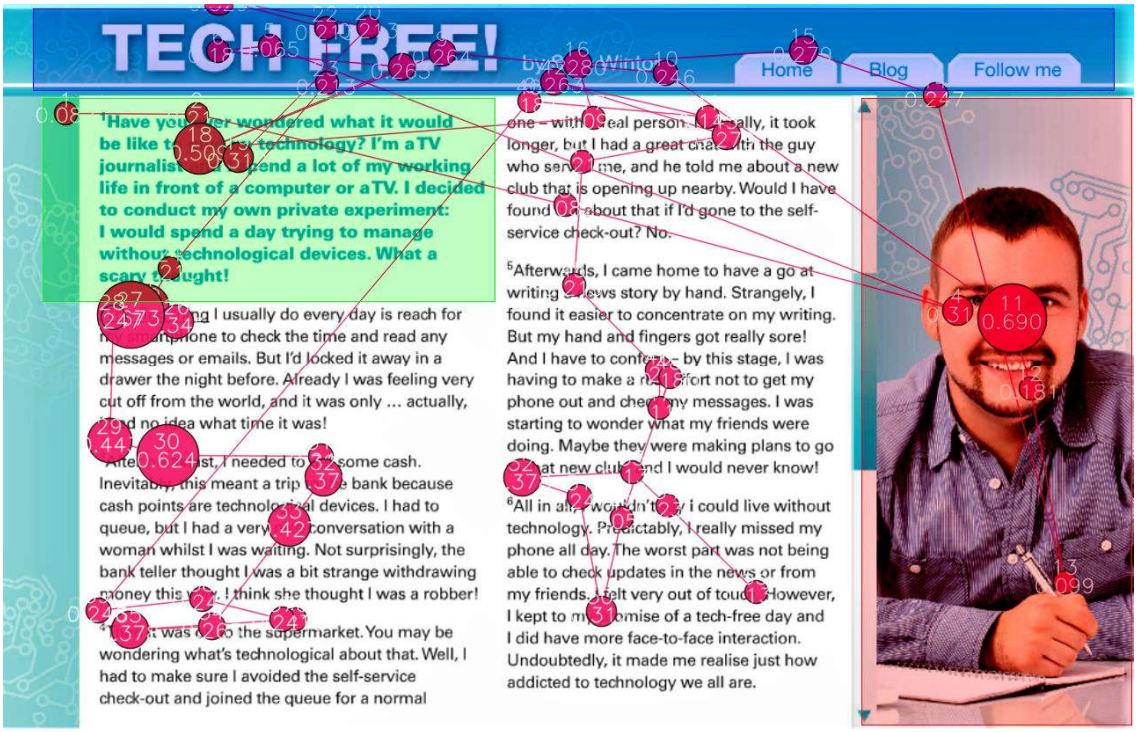

Figure 4.5. *Skimming Behaviour of Participant 21 in the Second Eye Tracking Implementation*

Figure 4.6. *Skimming Behaviour of Participant 21 in the Third Eye Tracking Implementation*

4.5. RQ4: Analysis of Think-Aloud Protocols

The aim of administering think-aloud protocols was to shed more light on the use of global reading strategies since it is clear that each global reading strategy cannot be examined only through eye tracking. Thus, to find out what remained unknown in the eye tracking sessions, think-aloud protocols were also conducted. In these protocols, the participants were told to verbalize the reading process, namely how they had read the given texts. It was aimed at investigating whether the participants had performed any global readings strategies and how the strategy training affected the use of these strategies. As it was mentioned previously, retrospective think-aloud protocols were carried out in the study because conducting concurrent think-aloud protocols might not be suitable to the context and nature of the present study, especially taking into account the data collection procedure.

Throughout the think-aloud protocols, the participants were encouraged to think the reading process over and clarify what they had thought, how they had read, and

what global reading strategies they had used while reading. Therefore, they were exposed to no external involvement. They were supported when they asked only to help them remember certain parts of the texts. Each think-aloud protocol was recorded, transcribed, translated to the English language, and then analysed utilizing Salatacı and Akyel's (2002) coding scheme (See Appendix F), a modified version of Davis and Bistodeau's (1993) basic coding scheme and Block's (1986) coding scheme. The analyses were carried out by the researcher and an expert so as to ensure validity and reliability of the findings. The coding scheme of Salatacı and Akyel (2002) consists of three main types of reading strategies, i.e. bottom up, top down and metacognitive strategies, and 17 subcategories under these three main categories. However, because the current study focused only on the global reading strategies, a modification was needed. Within this necessary modification, in point of fact, the items were not altered. Instead, the strategies that do not converge were excluded, yet the ones which meet one of the global reading strategies were utilized in the analyses of the think-aloud data.

In this regard, because certain minor differences have emerged in the three analyses, firstly the findings are displayed separately, and then the effect of the strategy training is discussed taking into consideration the differentiation in the codes. In Figure 4.7., the codes found in the analysis of the first think-aloud protocol are displayed.

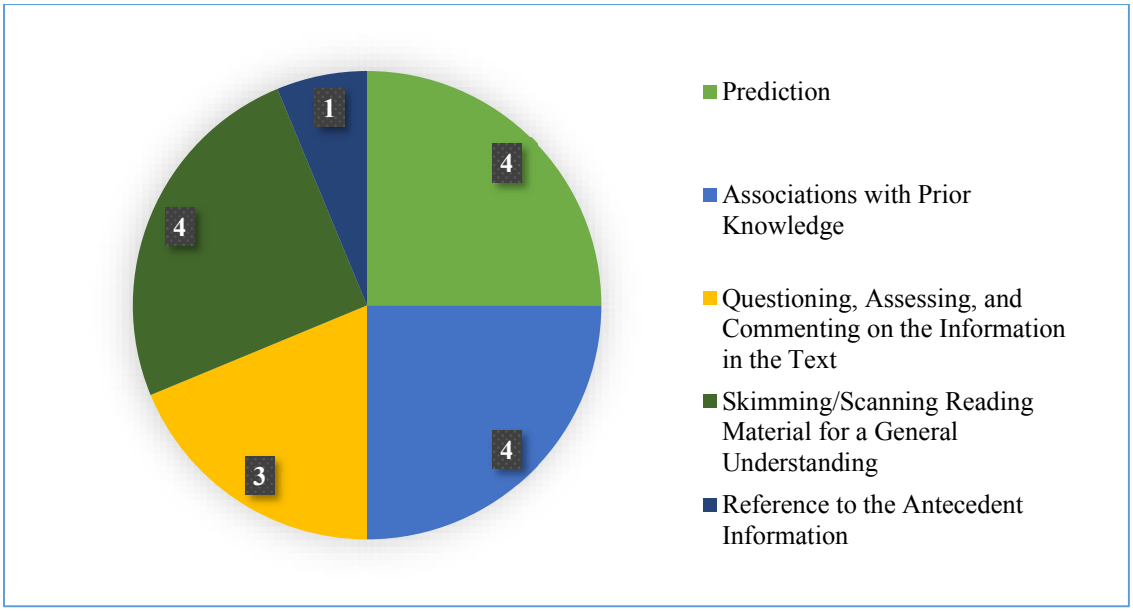

Figure 4.7. *The Codes Found in the First Think-Aloud Protocol's Analysis*

As shown in Figure 4.7., five strategies were found to be used by a total of 23 participants in the first think-aloud protocol, before the strategy training started. The findings revealed that the "skimming" strategy was used by four of the participants. Even though three of them stated no reasoning behind their skimming behaviour, one of the participants explained why she skimmed the whole text as demonstrated in the following extract (See Appendix K for the original untranslated forms of the statements):

Firstly, I only skimmed as a global way of synthesising. (Participant 3)

On the other hand, it is seen that four participants employed "predicting" strategy and "questioning" strategy was used by three participants. The findings showed that they used the title, pictures or the questions related to the text while posing questions and making predictions about the text. Considering the four strategies of reciprocal teaching, these findings can be interpreted as a welcoming start for the present study. Nonetheless, seeing that the big majority of the participants utilized neither of the strategies might support the idea that a training can provide them with particular reading strategies, which make them effective readers and better comprehenders. Finally, with regard to establishing associations with prior knowledge or prior information, the results indicated that four participants drew connections between what they had already known and what the text included, whereas re-thinking over a certain part of the text was performed by only one participant. The following extract shows how the participant linked different points given in the text:

I used the keywords there, I made connections with those words. (Participant 12)

Although the codes found in the first and second think-aloud protocols' analyses are basically the same, there were also certain strategies that had been employed while reading the first text but were not used in the second implementation or vice versa. Figure 4.8. displays the strategies found to be utilized by the participants while they were reading the second text.

In comparison with the first think-aloud protocol's findings, it can be said that the second think-aloud protocol offers less variety regarding the reading strategies employed by the participants because only four codes emerged in the analysis as shown in Figure 4.8. On the other hand, the results showed that there is an improvement in the use of "skimming" strategy (f = 15) and the "predicting" strategy (f = 10). Nine of the participants who made predictions on the content of the text stated that they used the

title while predicting what the text could be about. Because the very first step of reciprocal teaching is looking at the title and making predictions about the content, this finding is very encouraging in terms of the efficacy of reciprocal teaching in facilitating L2 readers' metacognitive awareness of using "predicting" as a reading strategy. The results also showed that four participants took this strategy a step forward confirming or modifying their predictions. Participant 8 explains how he performed this confirmation as follows:

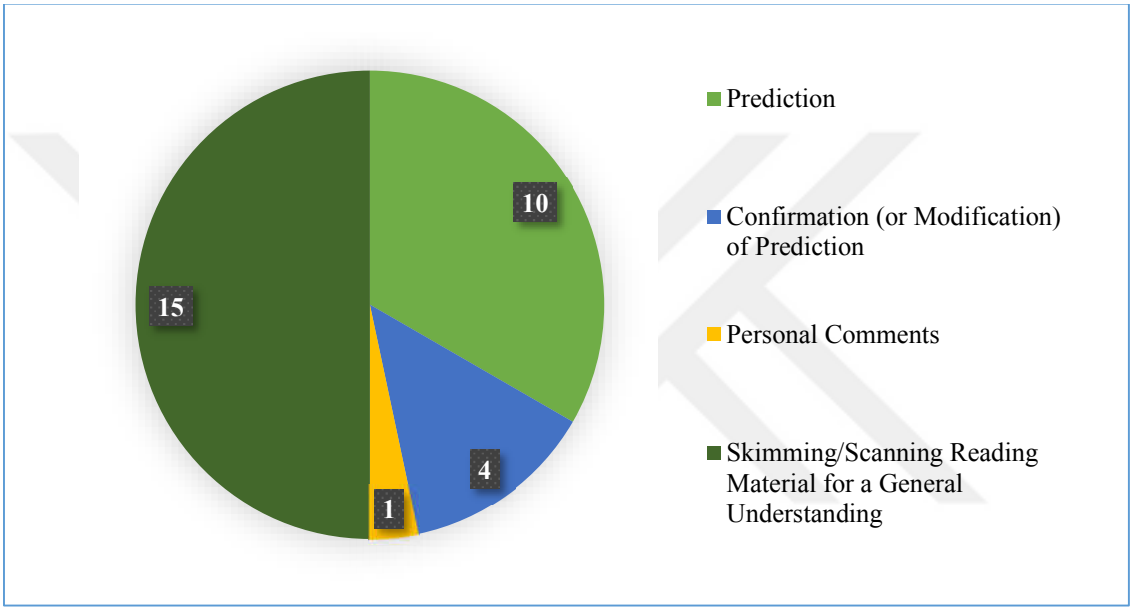

Figure 4.8. *The Codes Found in the Second Think-Aloud Protocol's Analysis*

Then the photos on the right directed my attention, when I did not realize that among them, there was not a person describing a different emotion from the others, I thought that it was completely about optimism. (Participant 8)

Hand in hand with the predicting strategy, the skimming strategy was used by the participants to foster their understanding and note characteristics of the text. Besides the findings revealed that the participants utilized the images as well while skimming, especially in order to find clues about the text. As it was mentioned in the previous subheading, the images can serve as useful contextual clues, and if L2 readers know how to use these clues effectively, they can be better L2 comprehenders and decrease the amount of time spent understanding the problematic points in a given text. The

following extract displays how participant 7 used these context clues making connections between the title and the images:

Firstly, before reading the text, I looked at the title, then looked at the pictures next the text, I tried to associate the pictures with the title. (Participant 7)

The above-given extract in fact clarifies that the participants did not use the strategies separately at all – that is to say, as shown above, they preferred combining the strategies from time to time. For instance, Participant 7 employed "using context clues", "previewing text for content" and "skimming to note text characteristics" at the same time. In this respect, it can be said that the findings of the third think-aloud protocol bear a resemblance to those of the second. To be more precise, it was seen that the participants employed certain strategies synchronously and relatedly while reading the third passage. Moreover, similar to the second think-aloud protocol's findings, four codes were found in the analysis of the third think-aloud protocol. In Figure 4.9., the codes and their frequencies are displayed.

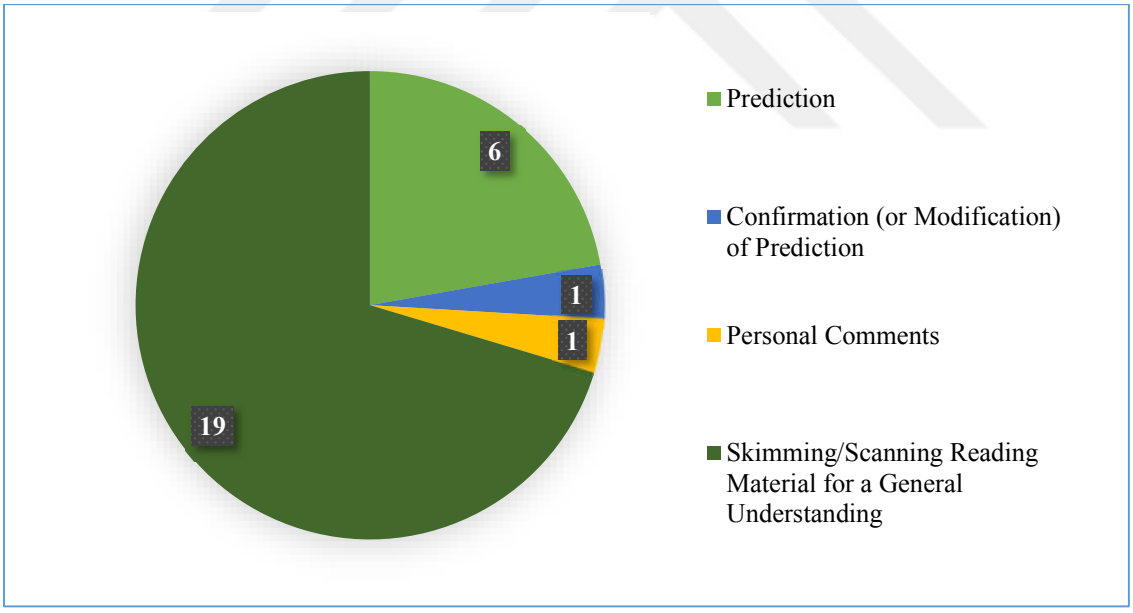

Figure 4.9. *The Codes Found in the Third Think-Aloud Protocol's Analysis*

As shown in Figure 4.9., frequency of the skimming strategy was found to be 19, which is higher than those of the first and the second think-aloud protocols, so it can be concluded that the strategy training affected the use of skimming strategy positively. On the other hand, whereas it is higher than that of the first think-aloud protocol, frequency

of the predicting strategy was found to be 6. However, compared to the second, the participants utilized the predicting strategy less often while reading the third text. Considering that both the skimming and predicting strategies serve the same purpose, this finding can be interpreted as a promising outcome for the future use of reciprocal teaching in L2 environments. More precisely, both strategies help L2 readers to sustain their general understanding before starting to read, thus the increase in the total frequency of these two strategies can be quite encouraging for the efficacy of reciprocal teaching in facilitating the use of global reading strategies. Furthermore, the findings revealed that a personal comment was expressed by two participants, separately the second and third think-aloud protocols. Fortunately, both comments confirmed that the texts were suitable to the participants' interests since they both stated that they liked the topic and the texts directed their attention.

In conclusion, it can be said that the strategy training, conducted through reciprocal teaching, was beneficial to improve the use of global reading strategies, which was also suggested in other research studies discussed in detail previously (Salataci & Akyel, 2002; Spörer et al., 2009). When compared the total frequency of the codes found in the first think-aloud protocol to that of the third one, it can be seen that there is an increase in the participants' use of skimming and predicting strategies. Besides, even though they were not included in this heading, various strategies were found to be used by the participants in the summary writing task. The findings related to these strategies are displayed and discussed in the following subheading separately because they could not be linked with global reading strategies directly, but were found useful for facilitating the participants' metacognitive awareness and use of these strategies.

4.5.1. The strategies utilized in the summary writing task

In point of fact, the strategies examined in this subheading were described as metacognitive reading strategies by Salatacı and Akyel (2002) in their coding scheme. For this reason, they could not be evaluated solely as global reading strategies. However, because they provided insights into the reading strategies employed by the participants as well as their metacognitive awareness of these strategies, they tallied with global reading strategies in certain points and were chosen to be discussed separately.

The coding scheme of Salatacı and Akyel (2002) includes two metacognitive reading strategies: commenting on the task itself and commenting on own behaviour or process. Table 4.13. demonstrates the frequencies of these strategies for each think-aloud protocol.

Table 4.13. *Frequencies of the Two Metacognitive Reading Strategies (Salatacı & Akyel, 2002)*

	Commenting on the Task Itself		**Commenting on Own Behaviour or Process**	
	N	***f***	**N**	***f***
The 1st Think-Aloud Protocol	23	1	23	15
The 2nd Think-Aloud Protocol	23	-	23	23
The 3rd Think-Aloud Protocol	23	-	23	22

As displayed in Table 4.13., nearly all the participants expressed their comments on their own reading behaviours or the reading process. It is quite surprising to find that all of these comments were about the summary writing task. Considering that summarizing is one of the four strategies used in reciprocal teaching, the participants' paying attention to this task can be interpreted as a promising finding with reference to the effectiveness of reciprocal teaching in improving use of global reading strategies. More precisely, although "writing summaries of reading" is described as a support reading strategy by Mokhtari and Reichard (2002) as well as Mokhtari and Sheorey (2002), it is included in reciprocal teaching as a comprehension-enchancing strategy (Palincsar & Brown, 1984, p. 120). Additionally, like the other three strategies of reciprocal teaching, this strategy can also be a powerful comprehension-monitoring and comprehension-fostering activity if it is utilized in a correct way (Palincsar & Brown, 1984, p. 121). It hence becomes more of an issue and needs to be examined.

In the analyses of the think-aloud protocols, it was found that the participants most of the time tended to make use of the main ideas and keywords while writing their summaries. The following three extracts exemplify this finding:

While writing the summary, I formed certain keywords for myself, I tried to include them. (Participant 5 – The 2nd Think-Aloud Protocol)

I paid attention to the main ideas while writing the summary, I tried to include them. (Participant 10 – The 2nd Think-Aloud Protocol)

There are already crucial points in each paragraph, while writing the summary, I tried to include them. (Participant 11 – The 3rd Think-Aloud Protocol)

What's more, the participants stated that they approached the texts from a global perspective, namely they took advantage of the specific points given in the texts, but tried to construct a general understanding towards the passages. This can be demonstrated as follows:

While writing the summary, I mentioned each of them, I wrote generally discussing them one by one. (Participant 22 – The 3rd Think-Aloud Protocol)

The findings also showed that the participants sometimes generated their own strategies. Even though their individual strategies did not directly correspond to the global reading strategies, they enabled the participants to raise their awareness of reading strategies and improve their global understanding towards the texts. For this reason, they are of great importance. The following extract well describes one of these strategies employed by a participant:

Firstly, I read the first and last sentences of the paragraphs. My Turkish language teacher taught this strategy to me, hence I already understood the main points to be explained, that's why summarizing was easy for me. (Participant 2 – The 2nd Think-Aloud Protocol)

To sum up, it can be said that the results uncovered certain reading strategies which could not be linked with the global reading strategies in a direct way. Notwithstanding, as they enabled the participants to foster and enhance their general understanding, they were found to be important and hence discussed. Furthermore, because the findings revealed an increase in the frequencies of these strategies after the training, it can be concluded that strategy instruction was useful for the betterment of reading strategy use (Janzen, 2002 Muñiz-Swicegood, 1994; Pilten, 2016).

4.6. RQ5: Relationships among MARSI, Eye Tracking Findings, Reading Comprehension Tests, and Think-Aloud Protocols

In this section, firstly, all the findings obtained through the analyses of four data collection instruments are displayed within a summary table, then the relationships among them are examined and discussed in the light of the literature. Table 4.14. indicates the summaries of MARSI, reading comprehension tests (RCTs), eye tracking (ET), and think-aloud protocols (TAPs).

Table 4.14. *Summary Table for the Four Data Collection Instruments' Findings*

Instrument	Implementation 1	Implementation 2	Conclusion
MARSI	• *M*=3,5013, *SD*=,57512	• *M*=4,1830, *SD*=,35841	• A statistically significant difference between pre-administration and post-administration of MARSI ($t(22)$= -6,088, p<.001)

Instrument	Implementation 1	Implementation 2	Implementation 3	Conclusion
RCTs	• *M*=18,13, *SD*=1,140	• *M*=18,83, *SD*=1,969	• *M*=21,74, *SD*=3,922	• A statistically significant difference between the first reading comprehension test and the third reading comprehension test • A statistically significant difference between the second reading comprehension test and the third reading comprehension test • No significant difference between the first reading comprehension test and the second reading comprehension test
TAPs	• Prediction (4 Ps) • Association with Prior Knowledge (4 Ps) • Skimming/Scanning Reading Material for a General Understanding (4 Ps) • Questioning, Assessing, and Commenting on the Information in the Text (3	• Prediction (10 Ps) • Confirmation (or Modification) of Prediction (4 Ps) • Skimming/Scanning Reading Material for a General Understanding (15 Ps) • Personal Comments (1 P)	• Prediction (6 Ps) • Confirmation (or Modification) of Prediction (1 P) • Skimming/Scanning Reading Material for a General Understanding (19 Ps) • Personal Comments (1 P)	• An improvement in the participants' use of skimming and predicting strategies • Various strategies were found to be used by the participants in the summary writing task.

	Ps) • Reference to the Antecedent Information (1 P)			
	The Title	The Introductory Paragraph	The Images	Conclusion
ET	• Statistically significant differences among the three implementations, except for the total fixation duration and the number of fixations of the first and second ET implementations	• No statistically significant differences, except for the number of revisits (Statistically significant differences between the first and the third ET implementation, and between the second and the third ET implementation)	• Statistically significant differences among the three implementations, except for the first and second ET implementations	• The participants looked at the title for a longer time during the last eye tracking implementation, and they directed their eyes towards the title gradually more. The relook behaviour of the participants improved in a gradual way. • As for the introductory paragraph, no statistically significant differences were found with regard to the total fixation duration and the number of fixations, but the number of revisits increased gradually. • Regarding “the images” factor, statistically significant differences were not found only between the 1st and 2nd ET implementations, so the training was found to be useful for the improvement of “using context clues” strategy.

As briefly shown in Table 4.14. and examined in detail previously, the strategy training was quite profitable with reference to the participants' metacognitive awareness and perceived use of global reading strategies. The analyses of MARSI yielded statistically significant differences, and even though the number of research studies, investigating the effect of an instruction on the reading strategies, is limited, the findings of the present study were found to be consistent with those of Zhang and Wu (2009) and Yüksel and Yüksel (2012). In these studies, it was also found that global reading strategies were commonly utilized by EFL learners. Similarly, in addition to the apparent increase in the participants' metacognitive awareness and perceived use of global reading strategies as a result of the training, it was determined in the first MARSI implementation that they did not actually fit on the back of a postage stamp. However, as it was mentioned before, these research studies aimed at exploring to what extent the reading strategies were employed by learners of English. They hence did not carry out any trainings. In the current study, alternatively, reciprocal teaching was chosen as the way of instruction and a strategy training was conducted to facilitate use of global reading strategies as well as metacognitive awareness of the participants towards these strategies. Taking the significant difference between pre-administration and post-administration of MARSI ($t(22)= -6{,}088$, $p<.001$) into consideration, it can be concluded that the training provided worthwhile opportunities for the participants to verify this facilitation.

In line with the MARSI findings, reading comprehension scores of the participants were found to be affected positively by the strategy training, too. Supporting their findings with think-aloud protocols, observations, semi-structured interviews, and a questionnaire, Salatacı and Akyel's (2002) study also examined how the strategy training, carried out through reciprocal teaching, made a difference to reading comprehension skills of Turkish EFL learners. What was found in their study was comparably encouraging with regard to the efficacy of reciprocal teaching: the participants' reading comprehension scores and use of metacognitive reading strategies improved after the instruction. In a similar way, Spörer, Brunstein and Kieschke (2009) conducted their research study to find out the impact of three different strategy instruction methods on reading comprehension skills and strategy use of elementary-school students. Because its findings were in agreement with those of the present research study and Salatacı and Akyel's (2002) study, it can be suggested that when

learners of English take an instruction, specifically designed to foster the use of reading strategies, it is quite possible that they gain more awareness towards the strategies and more success in comprehending the texts in the English language. Especially considering that these strategies are to be utilized "for enhancing comprehension and overcoming comprehension failures" (Palincsar & Brown, 1984, p. 118), they take on a new significance.

Hand in hand with think-aloud protocols' findings, eye tracking results were also encouraging for the use of reciprocal teaching in EFL environments, particularly in reading classes. Although eye tracking is not commonly used within research studies that have instructional purposes, integrating this valuable research tool into teaching environments can provide precious insights into how different teaching methods affect the learning process. Therefore, in the current study, eye tracking was utilized to find out the impact of an instruction method on the reading strategy use. In spite of not including an instructional component, Hyönä and Nurminen (2006) focused on L2 readers' awareness towards their reading processes, too. Like the current study, they also used eye tracking to confirm their findings in addition to the summary protocols and a questionnaire, investigating participants' reading behaviours and individual reading styles. What the analyses revealed matched up to the previous research study of Hyönä, Lorch and Kaakinen (2002): four cluster profiles were found to classify the participants according to how they read and what reading strategies they utilized while reading. Moreover, unlike the former one, whether there was a correlation between the eye tracking results and those of the summary protocol and the questionnaire was examined as well in the study of Hyönä and Nurminen (2006), and the findings yielded a positive correlation in certain behaviours. In their study, they specifically aimed at exploring to what extent there was a relationship between the observed and verbally reported frequencies of reading speed, rereading behaviour and look-backs, and they performed the analyses on the basis of summed or overall scores. However, because the goal was to find out and describe what already existed, carrying out correlational analyses might be more possible. More precisely, the ultimate aim of Hyönä and Nurminen's (2006) research study, was based on shedding light on different reading styles through eye tracking and accordingly, discovering if what was told and what was done correlated, so no training was carried out and the efficacy of such a training was not examined. On the other hand, the present study was grounded upon discovering how the strategy training

affected reading comprehension skill over and above metacognitive awareness and use of reading strategies. Concisely, the purpose of the current research study was investigating the effect of a strategy training on the Turkish EFL learners' metacognitive awareness and use of global reading strategies as well as reading comprehension scores, rather than determining the relationships among them. Therefore, correlational analyses were not run within the study, but instead the above-mentioned variables were examined and discussed in detail.

Taking the data collection tools of the current study and what was found in the analyses of them into account, it can be concluded that the findings were in agreement with each other. The results of two MARSI administrations indicated that the participants' metacognitive awareness and perceived use of global reading strategies improved statistically significantly as a result of the training. Additionally, eye tracking findings confirmed that the participants utilized "previewing text for content", "skimming to note text characteristics" and "using context clues" strategies more frequently. Think-aloud protocols' results, consistently, revealed that the use of "previewing text for content" and "skimming to note text characteristics" strategies increased, and the participants gained more awareness towards prediction and their corresponding use of prediction as strategy was found to improve after the instruction. What's more, even though they were not included in Figures 4.7., 4.8. and 4.9., it was found that the participants developed certain individual reading strategies throughout the process. In line with this betterment of metacognitive awareness towards global reading strategies and the improvement in the use of these strategies, the results also yielded statistically significant differences regarding reading comprehension scores of the participants. Thus, in conclusion, it can be suggested that the strategy training, carried out through reciprocal teaching, was beneficial to the participants because it enabled them to gain more awareness of reading strategies and more accomplishment in employing these strategies as well as comprehending the English texts (Meyer, 2010; Oczkus, 2013; Sung, Chang, & Huang, 2008).

5. CONCLUSION AND IMPLICATIONS FOR TEACHING

Janzen (2002) starts her book chapter exemplifying two types of readers that indeed clarify why strategic reading has become more of an issue. In her well-describing examples, the focus is on adopting different approaches while preparing for an upcoming reading exam and reading a given text. From this point forth, thanks to the inspiration gained because of Janzen (2002), a further exemplification will be put forward: April is a learner of English, who is aware of her responsibilities and spends hours completing all her duties. Joy is also as hardworking as April is. She likes expanding her knowledge getting the benefit of what is taught to her. When they are told that they will take a reading exam, both begin to study immediately. April takes her favourite books and starts reading various materials looking up every single unknown word. She thinks that she will be able to get ready if she memorizes several words. Actually, she is not that wrong. On the other hand, Joy prefers reading in a bit different way. In her opinion, looking up all the unknown words can be time-consuming. Thus, she tries to make use of what the context gives to her. Her favourite helpers are sometimes the pictures and sometimes another word next to the unknown word. She also thinks that the way one starts reading is very crucial. She hence prefers previewing the text in order to see if she is familiar with the content.

Bearing the findings of the current research study as well as the studies discussed in detail previously, the result of the exam is obvious. In the present study, the underlying purpose was to provide the participants with opportunities through which they can become more strategic readers and better comprehenders. Utilizing reciprocal teaching as the way of instruction, a six-week strategy training was carried out with the aim of facilitating Turkish EFL learners' metacognitive awareness and use of global reading strategies over and above reading comprehension scores. 23 freshmen, enrolled in the English Language Teaching Department of a state university in Turkey, participated in the study, and the data were collected both quantitatively and qualitatively. Because the goal was also integrating an innovative tool into the research environment, eye tracking was used in addition to the Metacognitive Awareness of Reading Strategies Inventory (MARSI) (Mokhtari & Reichard, 2002) and reading comprehension tests. With the aim of eliminating the possible drawbacks of eye tracking, think-aloud protocols, which constituted the qualitative part of the data, were conducted. The whole procedure lasted successive ten weeks (See Table 3.7.), but

before the study started, a pilot test was implemented to decide on the texts to be used during the eye tracking sessions. What's more, a former examination was held to determine the participants.

The results of MARSI yielded statistically significant differences, from which it can be concluded that the training was useful for the improvement of metacognitive awareness and perceived use of global reading strategies. In that vein, the findings of eye tracking and think-aloud protocols revealed that the participants employed these strategies more frequently after they took the instruction. Among the three eye tracking implementations, within the three areas of interest (title, introductory paragraph and images), statistically significant differences were found mostly between the first and the third eye tracking implementation (See Table 4.13. for a summary of the findings). Think-aloud protocols' results confirmed the betterment of the participants' strategy use and awareness, too. Particularly considering what the analyses revealed regarding the use of "previewing text for content" and "skimming to note text characteristics" strategies along with prediction, it can be suggested that reciprocal teaching is a fruitful way of instruction to facilitate the perceived and actual use of global reading strategies as well as metacognitive awareness towards these strategies.

5.1. Implications for Teaching

Basically, the present study was grounded in three concepts: reciprocal teaching, global reading strategies and eye tracking. In a word, how reciprocal teaching would affect use of global reading strategies was examined through eye tracking. However, in addition to the use of these strategies, the impact of the instruction on the metacognitive awareness and reading comprehension scores of the participants was investigated. Therefore, besides eye tracking, reading comprehension tests, think-aloud protocols and an inventory were utilized. In this section, taking the main concepts of the current study into consideration, the pedagogical implications are discussed within three perspectives.

Chosen as the instructional method within this study, reciprocal teaching was first formed by Palincsar and Brown 35 years ago, in 1984. When they put forward reciprocal teaching, they actually aimed at finding solutions for L1 readers' problems, so originally, this method was developed for less proficient L1 readers. In their own words, they proposed four strategies, i.e. summarizing (self-review), questioning, clarifying and predicting, so as to help learners both monitor and foster their

comprehension (1984, pp. 118-121). Alternatively, Cotterall (1990, 1993) suggested that reciprocal teaching be used in ESL contexts as well. She directed the attention to the factors to be considered in ESL environments and suggested reciprocal teaching as a training method bringing metacognitive consciousness-raising and strategy training together (1993, p. 2). On the other hand, Song (1998) was the researcher who first gave the idea of utilizing reciprocal teaching in EFL environments. Like Palincsar and Brown, Song (1998) also put forward this method into consideration for less proficient readers. However, because of the four global strategies emphasized in reciprocal teaching, it can be used with more skilled L2 learners as they enable them to foster their general understanding as well as draw more logical conclusions (Song, 1998, pp. 44-46). Focusing attention on the possible benefits of reciprocal teaching, in the Turkish EFL context, it has been chosen as the way of instruction, too. And, its positive impact on Turkish EFL learners' reading comprehension in L2 (Dokur, 2017; Pilten, 2016) along with its efficacy in fostering L1 reading comprehension (Salatacı & Akyel, 2002) have been confirmed. Hence, it can be suggested that reciprocal teaching be utilized in the Turkish EFL environment as well. The "predicting" strategy of reciprocal teaching enables learners to develop a better general understanding and activates their background knowledge about the given topic while the "summarizing" strategy facilitates their comprehension guiding them to verbalise what they have understood in their own words. By doing so, they are able to draw more personal conclusions about the given texts, and internalise what is delivered via the texts more effectively. On the other hand, the other two strategies, namely questioning and clarifying, provide learners with opportunities in which they can focus on their weaknesses more easily. Posing questions on the unknown or incomprehensible words and structures, learners are required to think their existing knowledge over. And, accordingly, clarifying these problematic components of the texts, they are able to find immediate answers to their questions. Moreover, in reciprocal teaching, the teacher shares the leading role with learners letting them be leaders or facilitators throughout the process. In this way, learners take the responsibility of their learning contributing to their own learning process actively. Therefore, using the original sequence of reciprocal teaching (Palincsar & Brown, 1984) or integrating one of the four strategies into a step of the lesson might be very useful for the improvement of learners' reading comprehension skills and strategy awareness as well as for making them better thinkers.

As the second fundamental concept of the present study, global reading strategies were found to be employed gradually more frequently by the participants. Moreover, the improvement in their reading comprehension test scores also showed that the strategy training was beneficial in terms of developing their reading comprehension skills. Based on these two findings, it can be stated that the more aware the participants were of global reading strategies, the better they comprehended the given texts. Hence, training programs, specifically designed with the aim of improving strategy use, may be to the advantage of EFL learners. As it was mentioned before, global reading strategies comprise 13 reading strategies, ranging from "skimming to note text characteristics" to "using context clues, text structure or textual features". Throughout the training lessons of the current study, specific steps and activities were included so as to enable the participants to employ these strategies both implicitly and explicitly (See Appendix I for the lesson plan). Apparently, directing learners' attention to the strategies might provide valuable benefits for them. Therefore, the teachers of English should plan and integrate certain activities into their courses for the betterment of learners' awareness use of these strategies. For instance, as a warm-up activity of a reading lesson, the teacher can show some photos or videos related to the text to be read and discussed in the lesson, and ask certain guiding questions to make predictions about the content of the text and for the activation of learners' background knowledge. While getting the answers of learners, he or she can form a mind-map on the board in order to make what has been put forward clear, visible and more comprehensible (Budd, 2004, pp. 37-42). Because of such a warm-up activity, the use of predicting strategy, which is also one of the 13 global reading strategies, might be facilitated. After that, the teacher may guide learners to skim the whole text to find some keywords about the text and hold a whole class discussion to produce ideas on the text. Associating the previously-stated suggestions with the newly-emerged ones, learners can be required to use context clues, i.e. images, figures or tables, or text structure for while skimming the text and identifying their own ideas, which might accordingly foster learners' global understanding and make their reading process easier.

And last but not least, eye tracking was determined as the third fundamental concept of the present research study. Although this concept may not be utilized in classroom settings, namely while teaching one of the four language skills or other areas of the language, it can be included in research studies, which have more teaching-based

purposes, as a recent data collection tool. Considering that eye tracking makes what learners perform in the process of L2 learning apparent, it can be suggested that it may be used to examine the efficacy of different teaching methods or techniques (Hyönä, Lorch, & Rinck, 2003, p. 330). However, it should be noted that the research triangulation needs to be well-planned since eye tracking, alone, might not be efficient enough to find out the different aspects of what is examined.

5.2. Suggestions for Further Research

The present study was conducted with 23 freshmen, enrolled in the ELT Department of a state university in Turkey, so they were not complete beginners in the English language. The very first suggestion can be carrying out a strategy training with L2 learners who are less proficient or have certain reading disabilities, which can shed more light on the efficacy of the earliest reciprocal teaching because Palincsar and Brown put forward it for L1 learners with reading deficiencies (1984). Moreover, the impact of reciprocal teaching on reading comprehension in L1 can be investigated because, as it has just been mentioned, originally this method was formed so as to help learners having certain problems while reading in their mother tongue. By doing so, L1 reading processes can be understood better and to what extent there is a correlation between L1 and L2 reading processes might be investigated. Similarly, if translated into the Turkish language, MARSI (Mokhtari & Reichard, 2002) can be administered to the native speakers of Turkish. By doing so, whether there is a transition between L1 and L2 regarding the use of reading strategies can be explored, too.

On the other hand, whether or not reciprocal teaching is useful for other skills of the language may be examined as well. Because learners are required to express their predictions, questions, clarifications, and summaries verbally in the reciprocal teaching procedure, their speaking skills may be affected implicitly in a positive manner because of reciprocal teaching. Thus, the effect of reciprocal teaching on EFL learners' speaking skills can be determined as the starting point of a further research study.

The last suggestion, which can be regarded as the most valuable and crucial suggestion of the current study, is the use of eye tracking technology within the research studies having instructional goals. The above said eye tracking research studies basically focus on identifying how individuals read or employ reading strategies while reading (Hyönä, Lorch, & Kaakinen, 2002; Hyönä & Nurminen, 2006), exploring

learners' cognitive processes while reading in L2 (Bax, 2013) or examining to what degree L2 learners use certain reading strategies (Prichard & Atkins, 2016). These research studies provide very valuable insights into L2 reading processes and use of reading strategies while reading in the target language, yet carrying out more research studies, based on investigating the efficacy of teaching methods or techniques in the process of L2 learning, can contribute to the literature and showing that eye tracking can also be utilized in such studies might make it more accessible.

5.3. Limitations of the Present Study

The data were collected both qualitatively and quantitatively, through four data collection instruments in the current research study, and the whole procedure lasted ten weeks. Even though the results were found to be encouraging for the further use of reciprocal teaching as well as eye tracking within EFL environments, a longitudinal study could have been designed to examine the delayed effect of reciprocal teaching on the participants' use and awareness of global reading strategies as well as reading comprehension scores.

On the other hand, due to the foreseen difficulties of conducting think-aloud protocols and eye tracking sessions, the number of participants were determined as 23. However, that number could be higher in order to explore the impact of reciprocal teaching on the use and metacognitive awareness of global reading strategies over and above reading comprehension skills of Turkish EFL learners from a more generalizable perspective.

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APPENDICES

APPENDIX A

CONSENT FORM

Değerli İngilizce Öğretmenliği Programı 1. Sınıf Öğrencisi,

Bu çalışmanın üç temel amacı vardır. İlk olarak, İngilizce Öğretmenliği programına devam eden hazırlık sınıfı öğrencilerinin genel okuma stratejilerine yönelik üst bilişsel farkındalıklarının ve bu stratejilerin öngörülen kullanımlarının ortaya çıkarılması amaçlanmaktadır. Karşılıklı öğretim yöntemi kullanılarak gerçekleştirilecek strateji eğitiminin katılımcıların strateji kullanımlarını iyileştirmedeki olası etkilerinin incelenmesi, ikinci ana hedef olarak belirlenmiştir. Son olarak, göz okuma teknolojileri kullanılarak elde edilen bulguların, Okuma Stratejileri Üst Bilişsel Farkındalık Envanteri (Mokhtari & Reichard, 2002), sesli düşünme protokolleri ve okuduğunu anlama testlerinden elde edilen bulgularla tutarlı olup olmadığının incelenmesi amaçlanmıştır.

Toplanan veriler, bir yüksek lisans tez çalışması kapsamında kullanılacaktır. Çalışmada yer alacak kişilerin isimleri hiçbir şekilde açıklanmayacak ve bireyler kişisel olarak kesinlikle değerlendirilmeyeceklerdir. Çalışma süresince içten ve samimi olmanız çok önemlidir. Elde edilen veriler sadece bilimsel amaçlar için kullanılacaktır.

Bu çalışmaya yapacağınız değerli katkılar için şimdiden çok teşekkür ederim.

Arş. Gör. Özlem UTKU
Bayburt Üniversitesi Eğitim Fakültesi
İngiliz Dili Eğitimi Ana Bilim Dalı
Bâberti Külliyesi, Bayburt

Bu çalışmaya tamamen kendi rızamla, istediğim takdirde çalışmadan ayrılabileceğimi bilerek verdiğim bilgilerin bilimsel amaçlarla kullanılmasını kabul ediyorum.

İmza:

Ad & Soyad:

APPENDIX B

DEMOGRAPHIC INFORMATION QUESTIONNAIRE

Değerli İngilizce Öğretmenliği Programı 1. Sınıf Öğrencisi,

Bu kısa anketten elde edilecek bilgiler, bir yüksek lisans tez çalışması kapsamında kullanılacaktır. Katılımcıların paylaşacağı bilgiler, kesinlikle kişisel olarak değerlendirilmeyecektir ve yalnızca bilimsel amaçlar doğrultusunda kullanılacaktır.

Soruları cevaplarken dikkatli ve samimi olmanız önemlidir.

Bu çalışmaya yapacağınız değerli katkılar için şimdiden çok teşekkür ederim.

Arş. Gör. Özlem UTKU

Lütfen aşağıda yer alan kısa soruları kişisel bilgilerinizi ve deneyimlerinizi dikkate alarak yanıtlayınız.

1. **Yaşınız:**
2. **Cinsiyetiniz:**
3. **Mezun Olduğunuz Lise:**
4. **Kaç yıldır İngilizce öğreniyorsunuz?**
5. **Daha önce okuma stratejileri üzerine bir strateji eğitimi aldınız mı? Aldıysanız eğitimin içeriği ve size neler kattığı ile alakalı bilgiler verebilir misiniz?**

APPENDIX C

METACOGNITIVE AWARENESS OF READING STRATEGIES INVENTORY

Kouider Mokhtari and Carla Reichard © 2002

DIRECTIONS: Listed below are statements about what people do when they read academic or school-related materials such as textbooks, library books, etc. Five numbers follow each statement (1, 2, 3, 4, 5) and each number means the following:

- **1** means "I **never or almost never** do this."
- **2** means "I do this **only occasionally."**
- **3** means "I **sometimes** do this." (About **50%** of the time.)
- **4** means "I **usually** do this."
- **5** means "I **always or almost always** do this."

After reading each statement, **circle the number** (1, 2, 3, 4, or 5) that applies to you using the scale provided. Please note that there are **no right or wrong answers** to the statements in this inventory.

TYPE	STRATEGIES	SCALE				
GLOB	1. I have a purpose in mind when I read.	1	2	3	4	5
GLOB	3. I think about what I know to help me understand what I read.	1	2	3	4	5
GLOB	4. I preview the text to see what it's about before reading it.	1	2	3	4	5
GLOB	7. I think about whether the content of the text fits my reading purpose.	1	2	3	4	5
GLOB	10. I skim the text first by noting characteristics like length and organization.	1	2	3	4	5
GLOB	14. I decide what to read closely and what to ignore.	1	2	3	4	5
GLOB	17. I use tables, figures, and pictures in text to increase my understanding.	1	2	3	4	5
GLOB	19. I use context clues to help me better understand what I'm reading.	1	2	3	4	5
GLOB	22. I use typographical aids like bold face and italics to identify key information.	1	2	3	4	5
GLOB	23. I critically analyze and evaluate the information presented in the text.	1	2	3	4	5
GLOB	25. I check my understanding when I come across conflicting information.	1	2	3	4	5
GLOB	26. I try to guess what the material is about when I read.	1	2	3	4	5
GLOB	29. I check to see if my guesses about the text are right or wrong.	1	2	3	4	5

APPENDIX D1

FIRST READING COMPREHENSION TEST

UNIT 2
Reading and listening extension

1 READING

a Read an article about four animals and tick (✓) the things mentioned in the article.

1 ☐ an animal that lives in a different place from its ancestors
2 ☐ an animal that is becoming more and more widespread
3 ☐ an animal made famous in films
4 ☐ an animal that is now extinct
5 ☐ an animal that is important in many countries
6 ☐ an animal that lives close to a lot of humans

b Read the article again. Match the animals 1–4 with the descriptions a–d.

1 ☐ funnel-web spider
2 ☐ great white shark
3 ☐ Komodo dragon
4 ☐ tiger

a This animal has a special ability that allows it to follow other animals more easily.
b This animal may attack humans if they start living in the same environment.
c This animal has attacked humans by accident.
d This animal is often involved in attacks on younger people.

c Read the article again. Are the sentences true or false?

1 Great white sharks normally don't eat humans for food.
2 Attacks on humans from great white sharks are always fatal.
3 Tigers normally stay away from humans.
4 The total number of tigers is large and growing.
5 The Komodo dragon is larger than is typical for the group of animals it belongs to.
6 When hunting, the Komodo dragon generally kills the animal it attacks immediately.
7 Some aspects of the behaviour of the funnel-web spider are different from that of other spiders.
8 A bite from any type of funnel-web spider is equally serious.

d Write a paragraph about a special or unusual animal you know something about, or research one on the Internet. Remember to include:

- where it is found – its natural environment and habitat
- whether it is rare, at risk, protected, endangered or extinct
- how it gets its food
- any strategies it uses to find food, to survive or to get an advantage.

TERRIFYING ANIMALS

The animal kingdom is full of frightening creatures – animals you definitely wouldn't want to see close up, apart from perhaps in a zoo. Here are four very different – but equally terrifying – animals.

THE GREAT WHITE SHARK

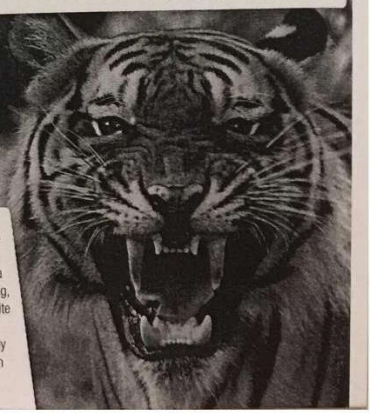
Most people have heard of this animal – made famous in the *Jaws* films of the 1970s and 1980s. The great white shark has a reputation for being a killer, but perhaps unfairly, as these animals don't normally hunt humans – elephants kill more people than sharks do. But the problem for sports lovers is that a person swimming on top of a surfboard can, to a shark below the water, look very similar to a seal – its food of preference. If a great white shark does attack a human, the results are not always deadly – it's believed that sharks don't like the taste of humans.

THE TIGER

The tiger is another animal that's probably familiar to most people, even though very few of us have ever seen one in the wild. Tigers have fascinated us since ancient times, and are very important to a number of cultures in Asia – they are the national animal of Bangladesh, India, Vietnam, Malaysia and South Korea. Tigers are the largest of all the cat species; they're fast runners, not to mention excellent swimmers. The good news is that they generally avoid contact with people, although they do attack, particularly when humans start to move into their natural habitats. It should also be added that tigers are now endangered and it's thought that humans play a very large role in this.

THE KOMODO DRAGON

The Komodo dragon is a very large lizard – it can grow as long as three metres and weigh up to 70 kg. Experts think Komodo dragons are related to ancient lizards from Australia, but they're now found only in some islands in Indonesia. They are probably most famous for their unusual methods of killing. When hunting, they attack but don't kill the other animal right away. This is because they have a poisonous bite, so after attacking the animal, they follow it until it dies from the poison, a job made easier thanks to their excellent sense of smell. While attacks on humans are rare, they can and do happen.



THE FUNNEL-WEB SPIDER

Many people are afraid of spiders, although the vast majority are completely harmless to humans. But there are of course a number of species that can be dangerous, and the funnel-web spider is certainly among them. This spider's natural habitat is in the area around the Australian city of Sydney. It can be between one and five centimetres long, and is dark blue, brown or black. Unlike many other spiders, this species can be quite aggressive when it comes into contact with humans. When it attacks, it holds on tight and can bite several times. A bite from a Sydney funnel-web spider is extremely painful and can kill quickly, although bites from the females are less severe. Children are particularly at risk – 42% of attacks involve children rather than adults.

APPENDIX D2

SECOND READING COMPREHENSION TEST

UNIT 5

Reading and listening extension

1 READING

a Read an article about optimistic people. Tick (✓) the correct summary of the author's ideas.

1 ☐ It's usually impossible to be an optimist if you are not naturally positive.
2 ☐ Anyone can be optimistic if they choose to do the right things.
3 ☐ Highly optimistic people are more fun to be with.

b Read the article again. Match topics a–e with paragraphs 1–5.

a ☐ Choosing the right things to think about
b ☐ Having fantasies can help
c ☐ Keeping a record
d ☐ Rethinking your attitude to work
e ☐ Where you are, who you're with

c Read the article again. Are the sentences true or false?

1 Optimists are both healthier and more successful at work.
2 Optimists focus on the happiness that the money they earn can bring.
3 It's easier to think about bad things that have happened to you than good things.
4 The writer suggests that if you believe in something enough, you'll definitely achieve what you want.
5 The writer says that writing a diary can help you understand your negative thoughts better.
6 The article says that optimistic people are lucky because they are naturally very positive.

d Write a paragraph about staying positive. Remember to include:

- what makes you feel positive
- what makes you feel less positive
- what you do if you want to improve your mood.

THE *Five* SECRETS OF HIGHLY OPTIMISTIC PEOPLE

Everyone wants to be an optimist, but it's not always easy – most of us have to try hard to stay positive when life is getting us down. It's worth the effort, though, since optimists enjoy better health and even do better in their careers. Here are five things that optimists do that will help you look on the bright side, even when you're stuck in a traffic jam or forced to work on a Sunday.

The secret to optimism is that it doesn't just happen – highly optimistic people work hard to stay positive. If you want to do well in your career, improve your relationships and enjoy your life, it's time to give optimism a try.

1 Optimists are passionate about their work. Do you need to force yourself to go to work each morning? Optimists don't, because they jump out of bed excited to face the day. This is because optimists have chosen jobs and careers which they genuinely feel passionate about. If you can't remember the last time you enjoyed a day at work, it may be time to start looking for a new job. For optimists, work is more than just an opportunity to earn money. It's also an opportunity to learn, grow and do what they love.

2 Optimists focus on good things, even though it's not the easiest thing to do. According to Florida State University professor Roy F. Baumeister's article, 'Bad Is Stronger Than Good', it's much easier to focus on the rainy days than the sunny ones. In the paper, Baumeister says people are generally more upset about losing $50 than they are happy to gain $50. When you start to feel bad-tempered or depressed, think about something good from your day to balance out the negative emotions. Optimists make a choice to focus on the good in their life instead of thinking about the bad.

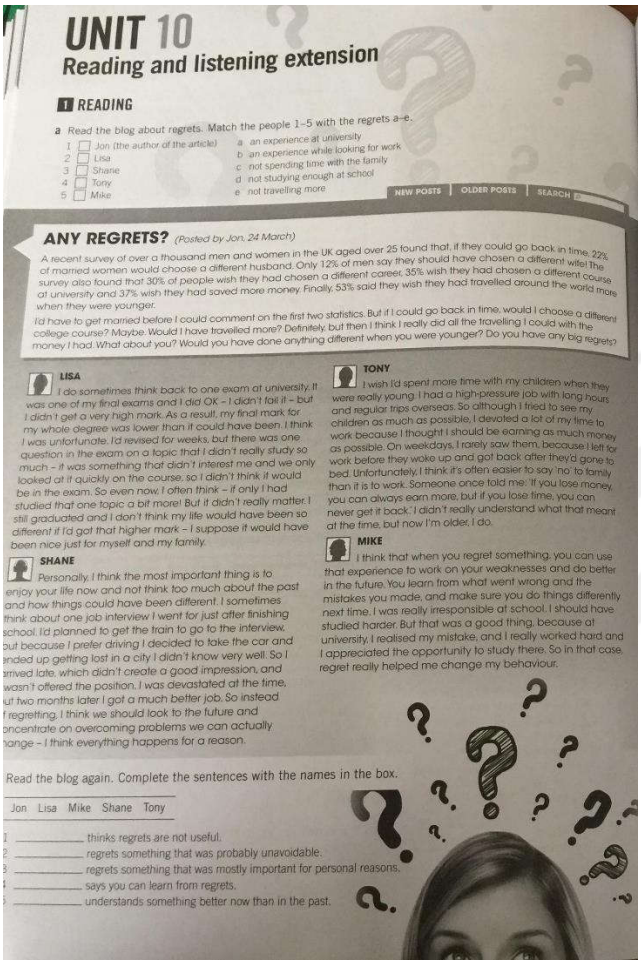
3 Optimists are more likely to be adventurous and ambitious. Believe in your dreams – and if you have big dreams, you might achieve better results. In 1997, researcher Gary McPherson studied child musicians, their goals and what happened to them later in life. He found that the child musicians who imagined themselves playing their instrument forever were more likely to become professional musicians in the future. So, while belief on its own isn't enough for success, a little dreaming certainly won't hurt.

4 Optimists keep a diary. As we've mentioned, it's very easy to focus on the negative events in our lives and ignore the positives. Keeping a diary can help you release negative energy and focus on positive emotions. During a few quiet moments in your morning or before bed, write a list of the positive moments from your day, or things you're trying to achieve in the future.

5 Optimists surround themselves with good feelings. If you surround yourself with supportive people and things you enjoy, you'll improve your mood and your day. The next time you lose concentration and start looking at videos of cats and dogs on the Internet, don't feel so bad about the time you wasted. Research has shown that spending a few moments doing something you enjoy will actually make you more productive.

APPENDIX D3

THIRD READING COMPREHENSION TEST



UNIT 10

Reading and listening extension

1 READING

a Read the blog about regrets. Match the people 1–5 with the regrets a–e.

1 ☐ Jon (the author of the article)
2 ☐ Lisa
3 ☐ Shane
4 ☐ Tony
5 ☐ Mike

a an experience at university
b an experience while looking for work
c not spending time with the family
d not studying enough at school
e not travelling more

NEW POSTS | OLDER POSTS | SEARCH

ANY REGRETS? *(Posted by Jon, 24 March)*

A recent survey of over a thousand men and women in the UK aged over 25 found that, if they could go back in time, 22% of married women would choose a different husband. Only 12% of men say they should have chosen a different wife! The survey also found that 30% of people wish they had chosen a different career, 35% wish they had chosen a different course at university and 37% wish they had saved more money. Finally, 53% said they wish they had travelled around the world more when they were younger.

I'd have to get married before I could comment on the first two statistics. But if I could go back in time, would I choose a different college course? Maybe. Would I have travelled more? Definitely, but then I think I really did all the travelling I could with the money I had. What about you? Would you have done anything different when you were younger? Do you have any big regrets?

LISA

I do sometimes think back to one exam at university. It was one of my final exams and I did OK – I didn't fail it – but I didn't get a very high mark. As a result, my final mark for my whole degree was lower than it could have been. I think I was unfortunate. I'd revised for weeks, but there was one question in the exam on a topic that I didn't really study so much – it was something that didn't interest me and we only looked at it quickly on the course, so I didn't think it would be in the exam. So even now, I often think – if only I had studied that one topic a bit more! But it didn't really matter. I still graduated and I don't think my life would have been so different if I'd got that higher mark – I suppose it would have been nice just for myself and my family.

SHANE

Personally, I think the most important thing is to enjoy your life now and not think too much about the past and how things could have been different. I sometimes think about one job interview I went for just after finishing school. I'd planned to get the train to go to the interview, but because I prefer driving I decided to take the car and ended up getting lost in a city I didn't know very well. So I arrived late, which didn't create a good impression, and I wasn't offered the position. I was devastated at the time, but two months later I got a much better job. So instead of regretting, I think we should look to the future and concentrate on overcoming problems we can actually change – I think everything happens for a reason.

TONY

I wish I'd spent more time with my children when they were really young. I had a high-pressure job with long hours and regular trips overseas. So although I tried to see my children as much as possible, I devoted a lot of my time to work because I thought I should be earning as much money as possible. On weekdays, I rarely saw them, because I left for work before they woke up and got back after they'd gone to bed. Unfortunately, I think it's often easier to say 'no' to family than it is to work. Someone once told me: 'If you lose money, you can always earn more, but if you lose time, you can never get it back.' I didn't really understand what that meant at the time, but now I'm older, I do.

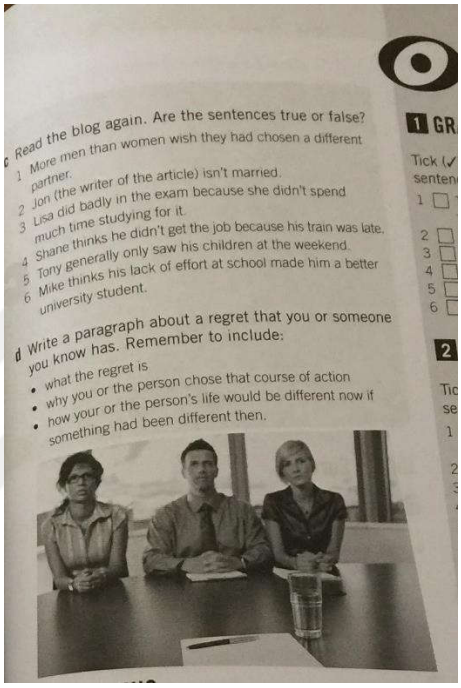
MIKE

I think that when you regret something, you can use that experience to work on your weaknesses and do better in the future. You learn from what went wrong and the mistakes you made, and make sure you do things differently next time. I was really irresponsible at school. I should have studied harder. But that was a good thing, because at university, I realised my mistake, and I really worked hard and I appreciated the opportunity to study there. So in that case, regret really helped me change my behaviour.

Read the blog again. Complete the sentences with the names in the box.

Jon Lisa Mike Shane Tony

1 _____ thinks regrets are not useful.
2 _____ regrets something that was probably unavoidable.
3 _____ regrets something that was mostly important for personal reasons.
4 _____ says you can learn from regrets.
5 _____ understands something better now than in the past.



c Read the blog again. Are the sentences true or false?

1 More men than women wish they had chosen a different partner.
2 Jon (the writer of the article) isn't married.
3 Lisa did badly in the exam because she didn't spend much time studying for it.
4 Shane thinks he didn't get the job because his train was late.
5 Tony generally only saw his children at the weekend.
6 Mike thinks his lack of effort at school made him a better university student.

d Write a paragraph about a regret that you or someone you know has. Remember to include:

- what the regret is
- why you or the person chose that course of action
- how your or the person's life would be different now if something had been different then.

APPENDIX E

READABILITY SCORES OF THE TEXTS UTILIZED DURING THE TRAININGS

Text	Flesch Reading Ease Score	Flesch-Kincaid Reading Age
Text 1	79,3	7,2
Text 2	75,4	7,2
Text 3	73,3	7,9
Text 4	76,5	8,2
Text 5	69,3	7,1
Text 6	78,9	8,3
Text 7	74,4	7,8
Text 8	66,6	7,1
Text 9	69,9	7,2
Text 10	73,2	7,8
Text 11	70,2	7,9
Text 12	71,6	8,1

APPENDIX F

THE CODING SCHEME ADAPTED FROM SALATACI AND AKYEL (2002) AND MODIFIED BY THE RESEARCHER IN LINE WITH THE AIMS OF THE CURRENT STUDY

Bottom Up Strategies.

1. **Individual Word Focus:** *The reader attempts to understand the meanings of individual words.*
    a. **Questioning the meaning of a word**
2. **Intrasentential Features:** *The reader attempts to understand the meaning or structure of a clause or sentence.*
    a. **Questioning meaning of a clause or sentence**
    b. **Questioning grammatical structures**
3. **Restatement:** *The reader restates the content by paraphrasing or rereading.*
    a. **By paraphrasing one sentence:**
    b. **By re-reading a text segment more than once**
4. **Translating and Restating one sentence:** *The reader translates or paraphrases the sentence.*
    1. **"… ama bir cümle beni çok zorladı, Türkçeye çevirmekte zorlandım yani anlayamadım."**

Top Down Strategies.

6. **Prediction:** *The reader predicts the likely content of the succeeding portions of the text.*
    1. **"Şimdi Hocam, ben zaten hep okurken ilk önce başlığı okuyorum. Neyle ilgili olduğunu öğrenmek için."**
7. **Confirmation (or Modification) of Prediction:** *The reader confirms or rejects the prediction he has made about the content of the succeeding portion of the text.*
    1. **"Sonra, sorulara baktım, optimism ile alakalı soruları da görünce tüm metnin iyimserlik üzerine olduğunu anladım."**

8. **Inferences:** *The reader makes an inference or draws a conclusion about the content.*
9. **Associations with Prior Knowledge:** *The reader uses his/her prior knowledge and experience about the content of the text.*
    1. **"Genel bildiğim paragraflarda kendi bildiğim şeyleri de işin içine katarım, emin olduğum şeyleri. Genel kültür bilgimi de dâhil ettim yani."**
10. **Questioning, Assessing, and Commenting on the Information in the Text:** *The reader comments on the significance of content, questions the information in the text.*
    1. **"Resimler de aslında yardımcı oluyor bir yerde ama daha çok açıklama kısımları sanırım."**
11. **Personal Comments:** *The reader reacts emotionally to the text.*
    1. **"Metin kendine çekti çok, o yüzden direkt okudum beş paragrafı birden art arda."**
12. **Skimming/Scanning Reading Material for a General Understanding:** *The reader skims/scans the whole or some portion of the text for a general understanding.*
    1. **"İlk başta genel bir sentezleme olarak sadece göz gezdirdim."**
13. **Reference to the Antecedent Information:** *The reader connects new information with the previously stated content.*
    1. **"Oradaki önemli kelimeleri kullandım, o kelimelerle bağlantı kurdum."**

Metacognitive Strategies.

16. **Comments on the Task Itself:** *The reader comments on the reading or the task itself.*
    1. **"D'yi yazarken bayağı zorlandım diyebilirim çünkü bazen böyle şeyleri yazmak daha zor oluyor. Burada verilmiş şeyleri bizim değişik şekilde yazmamız gerekiyor."**
17. **Comments on Own Behaviour and Process:** *The reader expresses awareness of the components of the process, describes strategy use in case of comprehension failure, monitors comprehension, and assesses his/her degree of understanding of the text.*
    1. **"Özetimde de bu önemli kısımları yazdım ama bazen yardım almam gerekti. Bu yüzden metne geri dönüp önemli bulduğum kısımları özetime dâhil ettim."**

APPENDIX G1

TEST ADMINISTERED IN THE FIRST EYE TRACKING IMPLEMENTATION

Please answer the following questions about the text.

Do you think the text is … ?

a. a serious survival guide for travellers
b. part of a scientific book about animals
c. an article written mainly for interest and amusement

What are the animals' common weak points? Tick the correct ones.

- ☐ The ears
- ☐ The eyes
- ☐ The nose
- ☐ The neck

Will animals attack unless people do something to make them angry? Tick the correct one.

- ☐ Yes
- ☐ No

APPENDIX G2

TEST ADMINISTERED IN THE SECOND EYE TRACKING IMPLEMENTATION

Please answer the following questions about the text.

Do you think the text is … ?

a. an article about excessive use of the Internet
b. part of a book about technology
c. a blog post written about use of technology

What does the writer do first when waking up in the morning?

_____

What can be concluded from this text?

- ☐ The writer can live without technology.
- ☐ The writer cannot live without technology.

APPENDIX G3

TEST ADMINISTERED IN THE THIRD EYE TRACKING IMPLEMENTATION

Please answer the following questions about the text.

Do you think the text is … ?

d. a non-fiction stories about two women
e. parts of a historical text
f. an article on two women's dreams

Were the women young when achieving their goals?

Tick the correct one.

- ☐ Yes
- ☐ No

Tick the sentence that summarizes best the two women's stories.

- ☐ You do not need to try once you have not got very pleasing results.
- ☐ You should go on trying to do your best if you want to achieve your dream.

APPENDIX H

CHECKLIST USED IN THE PILOT EYE TRACKING IMPLEMENTATION

Göz İzleme Yönteminde Kullanılacak Metinlerin

Görünüş Geçerliliği Sorgulayan Kontrol Çizelgeleri

Değerli Katılımcı,

Lütfen aşağıda verilen ifadeleri okuyunuz ve incelediğiniz her bir metni dikkate alarak kontrol listelerini tamamlayınız.

Katkınız ve katılımınız için şimdiden teşekkür ederim.

METİN 1 (TECH FREE! by Sam Winton)

Metni zorlanmadan okuyabiliyor musunuz?	1 (Hiç okuyamıyorum.)	2	3	4	5	6	7	8	9	10 (Çok iyi okuyabiliyorum.)
Metinde bulunan resimler net mi?	1 (Hiç net değil.)	2	3	4	5	6	7	8	9	10 (Çok net.)
Sizi rahatsız eden bir bulanıklık var mı?	1 (Evet, çok bulanık.)	2	3	4	5	6	7	8	9	10 (Hayır, hiç bulanık değil.)
Başlığı (ve varsa alt başlıkları) rahatlıkla okuyabiliyor musunuz?	1 (Hiç okuyamıyorum.)	2	3	4	5	6	7	8	9	10 (Çok iyi okuyabiliyorum.)
Sizi rahatsız eden bir resim var mı?	EVET					HAYIR				

METİN 2 (How to survive…)

Metni zorlanmadan okuyabiliyor musunuz?	1 (Hiç okuyamıyorum.)	2	3	4	5	6	7	8	9	10 (Çok iyi okuyabiliyorum.)
Metinde bulunan resimler net mi?	1 (Hiç net değil.)	2	3	4	5	6	7	8	9	10 (Çok net.)
Sizi rahatsız eden bir bulanıklık var mı?	1 (Evet, çok bulanık.)	2	3	4	5	6	7	8	9	10 (Hayır, hiç bulanık değil.)
Başlığı (ve varsa alt başlıkları) rahatlıkla okuyabiliyor musunuz?	1 (Hiç okuyamıyorum.)	2	3	4	5	6	7	8	9	10 (Çok iyi okuyabiliyorum.)
Sizi rahatsız eden bir resim var mı?	EVET					HAYIR				

METİN 3 (THE ROCK STAR WHO WASN'T)

Metni zorlanmadan okuyabiliyor musunuz?	1 (Hiç okuyamıyorum.)	2	3	4	5	6	7	8	9	10 (Çok iyi okuyabiliyorum.)
Metinde bulunan resimler net mi?	1 (Hiç net değil.)	2	3	4	5	6	7	8	9	10 (Çok net.)
Sizi rahatsız eden bir bulanıklık var mı?	1 (Evet, çok bulanık.)	2	3	4	5	6	7	8	9	10 (Hayır, hiç bulanık değil.)
Başlığı (ve varsa alt başlıkları) rahatlıkla okuyabiliyor musunuz?	1 (Hiç okuyamıyorum.)	2	3	4	5	6	7	8	9	10 (Çok iyi okuyabiliyorum.)
Sizi rahatsız eden bir resim var mı?	EVET					HAYIR				

METİN 4 (The man who DISAPPEARED)

Metni zorlanmadan okuyabiliyor musunuz?	1 (Hiç okuyamıyorum.)	2	3	4	5	6	7	8	9	10 (Çok iyi okuyabiliyorum.)
Metinde bulunan resimler net mi?	1 (Hiç net değil.)	2	3	4	5	6	7	8	9	10 (Çok net.)
Sizi rahatsız eden bir bulanıklık var mı?	1 (Evet, çok bulanık.)	2	3	4	5	6	7	8	9	10 (Hayır, hiç bulanık değil.)
Başlığı (ve varsa alt başlıkları) rahatlıkla okuyabiliyor musunuz?	1 (Hiç okuyamıyorum.)	2	3	4	5	6	7	8	9	10 (Çok iyi okuyabiliyorum.)
Sizi rahatsız eden bir resim var mı?	EVET					HAYIR				

METİN 5 (GOLDEN DREAMS AND GOLDEN GIRLS)

Metni zorlanmadan okuyabiliyor musunuz?	1 (Hiç okuyamıyorum.)	2	3	4	5	6	7	8	9	10 (Çok iyi okuyabiliyorum.)
Metinde bulunan resimler net mi?	1 (Hiç net değil.)	2	3	4	5	6	7	8	9	10 (Çok net.)
Sizi rahatsız eden bir bulanıklık var mı?	1 (Evet, çok bulanık.)	2	3	4	5	6	7	8	9	10 (Hayır, hiç bulanık değil.)
Başlığı (ve varsa alt başlıkları) rahatlıkla okuyabiliyor musunuz?	1 (Hiç okuyamıyorum.)	2	3	4	5	6	7	8	9	10 (Çok iyi okuyabiliyorum.)
Sizi rahatsız eden bir resim var mı?	EVET					HAYIR				

APPENDIX I

LESSON PLAN FOLLOWED THROUGHOUT THE TRAININGS

<table>
<tr><td colspan="2">Instructor: Özlem Utku</td></tr>
<tr><td colspan="2">Students: 23 first grade college students who are enrolled in the Department of ELT</td></tr>
<tr><td colspan="2">Duration: 50 minutes</td></tr>
<tr><td colspan="2">Aim: By the end of the lesson, the students will be able to comprehend a reading text.</td></tr>
<tr><td colspan="2">Objectives: By the end of the lesson, the students will be able to
1. state what their purpose of reading the text is.
2. skim the text to note its characteristics like length and organization.
3. skim the paragraphs to make predictions on the content of the paragraphs.
4. scan the text to comprehend contextual clues, tables, figures, pictures and typographical aids like bold face and italics.
5. scan the text to pose questions related to the text content.
6. interpret the text for clarification of incomprehensible points in the text.
7. summarize the text to draw conclusions about the content of the text and the paragraphs.</td></tr>
<tr><td colspan="2">Procedure:</td></tr>
<tr><td>Pre – Reading</td><td>1. The teacher gives the reading text (See Appendix A) to each student.
2. The teacher and students solely look at the title of the text and make predictions on the content of the text. At this stage, the teacher encourages students to remember what they know about the possible content of the text, that is, students' background knowledge is tried to be activated.
3. The teacher asks what their purpose of reading can be and guides them to determine a purpose and state it.
4. The teacher asks students to skim the whole text in order to note its characteristics like length and organization.</td></tr>
<tr><td>While – Reading First Phase</td><td>5. Students read the first paragraph of the text silently.
6. The teacher asks students to scan the text in order to comprehend context clues and typographical aids.
7. The teacher models how to ask questions about the paragraph and how to clarify blurred points. While posing questions and clarifying unclear points, the teacher, acting as a model, shows how to use contextual clues, tables, figures, pictures and typographical aids like bold face and italics in order to both increase understanding and identify key information.
8. The teacher models how to summarise the paragraph and how to predict the content of the following paragraph respectively. The teacher can repeat</td></tr>
</table>

	modelling at the following stages because it may take time to make students confident about taking roles, so the teacher should be patient and pay regard to wait time. **9.** A volunteer student is asked to be the leader who will guide the same procedure: firstly, the leader lets students read the paragraph silently and asks to scan the text to comprehend context clues and typographical aids. **10.** The leader asks a leading question about incomprehensible points in the paragraph and encourages students to ask more questions. **11.** The leader seeks or provides clarification for unclear points (e.g. unknown words, problematic grammar structures that inconvenience students' understanding). **12.** The leader states the main idea of the paragraph and summarises the content of the paragraph. **13.** The leader makes predictions about the content of the following paragraph and asks a volunteer student to be the next leader. (This process continues in this way till each paragraph is comprehended.)
While – Reading Second Phase	**14.** The teacher gives the worksheet (see Appendix B), including comprehension questions related to the text. **15.** The teacher divides the class into groups of three, introduces the first comprehension activity and tells students that they will complete the table with short answers. **16.** As a group of three, students complete the table with short answers. **17.** The teacher, acting as a guide, let students check the answers all together. (The teacher can choose a volunteer who will guide the activity – that is to say, after he/she starts, a volunteer may decide on the person who will share his or her answer with the class.) **18.** After the answers of the first comprehension activity are checked, the teacher introduces the second comprehension activity, which includes 4 multiple-choice questions. **19.** Students answers the multiple-choice questions of the second comprehension activity. **20.** The answers of the second comprehension activity are checked and then the teacher introduces the third comprehension activity, consisting of more detailed and specific questions related to the text. **21.** Students answers the questions of the third comprehension activity. **22.** The answers of the last activity are checked.
Post – Reading	**23.** The teacher addresses the following two questions and encourage students to discuss these questions with a partner: • Do you agree with the punishment the author received when he was eight years old? What would your parents do in a similar situation? What would you do if you were the parent? • When the author was caught stealing at the supermarket, what did his friend Andy do? What do you think about Andy's action? What would you have done if you were Andy?
Back-Up Activity: A quiz prepared online through https://quizlet.com/tr is used as the back-up activity. Students work in pairs and answers the questions.	

APPENDIX J

IELTS TASK 1 WRITING BAND DESCRIPTORS

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IELTS TASK 1 Writing band descriptors (public version)

Band	Task Achievement	Coherence and Cohesion	Lexical Resource	Grammatical Range and Accuracy
9	▪ fully satisfies all the requirements of the task ▪ clearly presents a fully developed response	▪ uses cohesion in such a way that it attracts no attention ▪ skilfully manages paragraphing	▪ uses a wide range of vocabulary with very natural and sophisticated control of lexical features; rare minor errors occur only as 'slips'	▪ uses a wide range of structures with full flexibility and accuracy; rare minor errors occur only as 'slips'
8	▪ covers all requirements of the task sufficiently ▪ presents, highlights and illustrates key features/bullet points clearly and appropriately	▪ sequences information and ideas logically ▪ manages all aspects of cohesion well ▪ uses paragraphing sufficiently and appropriately	▪ uses a wide range of vocabulary fluently and flexibly to convey precise meanings ▪ skilfully uses uncommon lexical items but there may be occasional inaccuracies in word choice and collocation ▪ produces rare errors in spelling and/or word formation	▪ uses a wide range of structures ▪ the majority of sentences are error-free ▪ makes only very occasional errors or inappropriacies
7	▪ covers the requirements of the task ▪ (Academic) presents a clear overview of main trends, differences or stages ▪ (General Training) presents a clear purpose, with the tone consistent and appropriate ▪ clearly presents and highlights key features/bullet points but could be more fully extended	▪ logically organises information and ideas; there is clear progression throughout ▪ uses a range of cohesive devices appropriately although there may be some under-/over-use	▪ uses a sufficient range of vocabulary to allow some flexibility and precision ▪ uses less common lexical items with some awareness of style and collocation ▪ may produce occasional errors in word choice, spelling and/or word formation	▪ uses a variety of complex structures ▪ produces frequent error-free sentences ▪ has good control of grammar and punctuation but may make a few errors
6	▪ addresses the requirements of the task ▪ (Academic) presents an overview with information appropriately selected ▪ (General Training) presents a purpose that is generally clear; there may be inconsistencies in tone ▪ presents and adequately highlights key features/bullet points but details may be irrelevant, inappropriate or inaccurate	▪ arranges information and ideas coherently and there is a clear overall progression ▪ uses cohesive devices effectively, but cohesion within and/or between sentences may be faulty or mechanical ▪ may not always use referencing clearly or appropriately	▪ uses an adequate range of vocabulary for the task ▪ attempts to use less common vocabulary but with some inaccuracy ▪ makes some errors in spelling and/or word formation, but they do not impede communication	▪ uses a mix of simple and complex sentence forms ▪ makes some errors in grammar and punctuation but they rarely reduce communication

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5	▪ generally addresses the task; the format may be inappropriate in places ▪ (Academic) recounts detail mechanically with no clear overview; there may be no data to support the description ▪ (General Training) may present a purpose for the letter that is unclear at times; the tone may be variable and sometimes inappropriate ▪ presents, but inadequately covers, key features/bullet points; there may be a tendency to focus on detail	▪ presents information with some organisation but there may be a lack of overall progression ▪ makes inadequate, inaccurate or over-use of cohesive devices ▪ may be repetitive because of lack of referencing and substitution	▪ uses a limited range of vocabulary, but this is minimally adequate for the task ▪ may make noticeable errors in spelling and/or word formation that may cause some difficulty for the reader	▪ uses only a limited range of structures ▪ attempts complex sentences but these tend to be less accurate than simple sentences ▪ may make frequent grammatical errors and punctuation may be faulty; errors can cause some difficulty for the reader
4	▪ attempts to address the task but does not cover all key features/bullet points; the format may be inappropriate ▪ (General Training) fails to clearly explain the purpose of the letter; the tone may be inappropriate ▪ may confuse key features/bullet points with detail; parts may be unclear, irrelevant, repetitive or inaccurate	▪ presents information and ideas but these are not arranged coherently and there is no clear progression in the response ▪ uses some basic cohesive devices but these may be inaccurate or repetitive	▪ uses only basic vocabulary which may be used repetitively or which may be inappropriate for the task ▪ has limited control of word formation and/or spelling; ▪ errors may cause strain for the reader	▪ uses only a very limited range of structures with only rare use of subordinate clauses ▪ some structures are accurate but errors predominate, and punctuation is often faulty
3	▪ fails to address the task, which may have been completely misunderstood ▪ presents limited ideas which may be largely irrelevant/repetitive	▪ does not organise ideas logically ▪ may use a very limited range of cohesive devices, and those used may not indicate a logical relationship between ideas	▪ uses only a very limited range of words and expressions with very limited control of word formation and/or spelling ▪ errors may severely distort the message	▪ attempts sentence forms but errors in grammar and punctuation predominate and distort the meaning
2	▪ answer is barely related to the task	▪ has very little control of organisational features	▪ uses an extremely limited range of vocabulary; essentially no control of word formation and/or spelling	▪ cannot use sentence forms except in memorised phrases
1	▪ answer is completely unrelated to the task	▪ fails to communicate any message	▪ can only use a few isolated words	▪ cannot use sentence forms at all
0	▪ does not attend ▪ does not attempt the task in any way ▪ writes a totally memorised response			

APPENDIX K

EXTRACTS TAKEN FROM THE THINK-ALOUD PROTOCOLS

- "İlk başta genel bir sentezleme olarak sadece göz gezdirdim. [Firstly, I only skimmed as a global way of synthesising.]"
  (Participant 3)
- "Oradaki önemli kelimeleri kullandım, o kelimelerle bağlantı kurdum. [I used the keywords there, I made connections with those words.]"
  (Participant 12)
- "Ondan sonra sağdaki fotoğraflar dikkatimi çekti, içlerinden diğerlerinden farklı bir duyguyu betimleyen bir insan olduğunu fark etmeyince tamamen optimistik ile alakalı olduğunu düşündüm. [Then the photos on the right directed my attention, when I did not realize that among them, there was not a person describing a different emotion from the others, I thought that it was completely about optimism.]"
  (Participant 8)
- "İlk metni okumadan önce başlığa baktım, sonra yandaki resimlere baktım, resimlerle başlığı bağdaştırmaya çalıştım. [Firstly, before reading the text, I looked at the title, then looked at the pictures next the text, I tried to associate the pictures with the title.]"
  (Participant 7)
- "Özeti yazarken de kendime göre keywordsler çıkardım, onlara yer vermeye çalıştım. [While writing the summary, I formed certain keywords for myself, I tried to include them.]"
  (Participant 5 – The 2nd Think-Aloud Protocol)
- "Her bir paragrafta zaten can alıcı noktalar vardı, özeti yazarken onlara yer vermeye çalıştım. [There are already crucial points in each paragraph, while writing the summary, I tried to include them.]"
  (Participant 11 – The 3rd Think-Aloud Protocol)

- “Özeti yazarken de her birinden bahsettim, onları tek tek ele alıp genel olarak yazdım. [While writing the summary, I mentioned each of them, I wrote generally discussing them one by one.]”
  (Participant 22 – The 3rd Think-Aloud Protocol)
- “İlk başta paragrafların ilk ve son cümlelerini okudum. Bu tekniği Türkçe hocam öğretmişti, buradan zaten anlatılmak istenen ana fikirleri anladım, özet çıkarması da bu yüzden benim için kolay oldu. [Firstly, I read the first and last sentences of the paragraphs. My Turkish language teacher taught this strategy to me, hence I already understood the main points to be explained, that’s why summarizing was easy for me.]”
  (Participant 2 – The 2nd Think-Aloud Protocol)

APPENDIX L

Research Ethics Committee Approval (Anadolu University)

Evrak Kayıt Tarihi: 31.12.2018	Protokol No: 120751	Tarih: 23.01.2019

ANADOLU ÜNİVERSİTESİ
SOSYAL VE BEŞERÎ BİLİMLER BİLİMSEL ARAŞTIRMA VE YAYIN ETİĞİ KURULU
KARAR BELGESİ

ÇALIŞMANIN TÜRÜ:	Yüksek Lisans Tez Çalışması
KONU:	Eğitim Bilimleri
BAŞLIK:	Reciprocal Teaching For Improvement of L2 Reading Comprehension and Use Of Global Reading Strategies: An Eye Tracking Study
~~PROJE~~/TEZ YÜRÜTÜCÜSÜ:	Dr. Öğr. Üyesi Gonca SUBAŞI
TEZ YAZARI:	Özlem UTKU
ALT KOMİSYON GÖRÜŞÜ:	-
KARAR:	Olumlu

Prof.Dr. Coşkun BAYRAK
(Başkan-Eğitim Fak.)

Prof.Dr. T. Volkan YÜZER *(Başkan Yardımcısı-Açıköğretim Fak.)*	**KATILMADI** **Prof.Dr. Esra CEYHAN** *(Eğitim Fak.)*
Prof.Dr. Münevver ÇAKI *(Güzel Sanatlar Fak.)*	**Prof.Dr. M. Erkan ÜYÜMEZ** *(İkt. ve İdari Bil. Fak.)*
Prof.Dr. Handan DEVECİ *(Eğitim Fak.)*	**Prof.Dr. Emel ŞIKLAR** *(İkt. ve İdari Bil. Fak.)*

APPENDIX M

Research Ethics Committee Approval (Bayburt University)

T.C.
BAYBURT ÜNİVERSİTESİ
ETİK KURULU KARARI

Karar Sayısı : 2018/23

Karar Tarihi : 09/10/2018
Oturum Sayısı : 10

Üniversitemiz Etik Kurulu tarafından Bayburt Üniversitesi Bayburt Eğitim Fakültesi Dekanlığı'nın 02.10.2018 tarihli ve 79126184-302.14.03/15053 sayılı yazısına istinaden, Yabancı Diller Eğitimi Bölümü İngiliz Dili Eğitimi Anabilim Dalı'nda görevli Araştırma Görevlisi Özlem UTKU'nun "Reciprocal Teaching for Improvement of L2 Reading Comprehension and Use of Global Reading Strategies: An Eye Tracking Study / İkinci Dilde Okuduğunu Anlamanın ve Global Okuma Becerileri Kullanımının Geliştirilmesi için Karşılıklı Öğretim: Bir Göz İzleme Çalışması" adlı tez çalışması, Üniversitemiz Etik Kurulunca incelenmiş olup, toplantıya katılan kurul üyelerince araştırmanın etik ilkelerine uygun olduğuna oy birliğiyle karar verilmiştir.

Prof. Dr. [illegible] BAYRAKTAR
Kurul Başkanı

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- 2016, Uludağ Üniversitesi, Eğitim Fakültesi, Yabancı Diller Eğitimi Bölümü, İngiliz Dili Eğitimi Ana Bilim Dalı
- 2012, İnegöl Zeki Konukoğlu Anadolu Öğretmen Lisesi
- 2017, Araştırma Görevlisi, Bayburt Üniversitesi, Bayburt Eğitim Fakültesi, Yabancı Diller Eğitimi Bölümü, İngiliz Dili Eğitimi Ana Bilim Dalı
- 2016, İngilizce Öğretmeni, Eskişehir American LIFE Dil Okulları
- 2016, İngilizce Öğretmeni, Bursa Artı Etüt Merkezi
- 2016, İngilizce Öğretmeni, Bursa İlk Çizgi Eğitim Kurumları
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Yayınları ve Bilimsel Faaliyetleri:

Makaleler:

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