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DEPARTMENT OF ENGLISH LANGUAGE EDUCATION

**AN INVESTIGATION ON THE EFFECTS OF USING COGNITIVE
AND METACOGNITIVE STRATEGIES TO ENHANCE
UNIVERSITY STUDENTS' READING SKILLS**

THESIS BY

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Sevim KUTLUTÜRK

DEDICATION

I dedicate this study in loving memory of my mother, Bessey PEKDEMİR, whose endless supply of love and encouragement guided me throughout every stage of my life.

ÖZET

ÜNİVERSİTE ÖĞRENCİLERİNİN OKUMA BECERİLERİNİ ARTTIRMADA BİLİŞSEL VE ÜSTBİLİŞSEL STRATEJİ KULLANIMI ETKİLERİNİN İNCELENMESİ

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Bu çalışmanın amacı öğrencilerin İngilizce bir metni okurken strateji kullanımındaki mevcut durumlarını anlamak, ayrıca bilişsel ve üst bilişsel strateji eğitimi sonrası strateji kullanımlarında ne ölçüde artış olduğunu incelemektir. Katılımcılar 18 ve 21 yaş arası 27 hazırlık sınıfı öğrencileridir. Çalışma Malatya, Türkiye’deki İnönü Üniversitesinde yürütülmüştür. Veri toplama prosedürü iki dönemden oluşmaktadır. Birinci dönem, 2015-2016 akademik yılının ilk yarısı son dört haftasında, ikinci dönem, 2015-2016 akademik yılının ilk dört haftasında gerçekleşmiştir. Araştırmacı, okuma stratejisi eğitiminde birinci dönem daha çok bilişsel strateji eğitimine, ikinci dönemde ise üst bilişsel strateji eğitimine odaklanmıştır.

Bu çalışmadaki metodolojik yaklaşım olgu çalışmasına dayalı karma metottur. Veri triangülasyonu için hem nicel hem de nitel metot izlenmiştir. Yarı yapılandırılmış görüşmeler, sesli düşünme protokolü, öğrenci ve araştırmacı günlükleri yolu ile toplanan niteliksel veriler betimsel olarak değerlendirilmiştir. Niceliksel veriler SPSS 2.0 versiyonuna yüklenerek istatistiksel olarak analiz edilmiştir. Çalışmadan elde edilen bulgular, sekiz haftalık bir strateji eğitimi sonrasında öğrencilerin strateji kullanımlarını arttırdıklarını ortaya koymuştur. Sonraki üst bilişsel okuma stratejileri araştırmalarının daha uzun bir zamanda yürütülmesi önerilmiştir.

Anahtar Kelimeler: Olgu Çalışması, Bilişsel Okuma Stratejileri, Üst Bilişsel Okuma Stratejileri, Okuma Anlama, Okuyucu Tipleme.

ABSTRACT

AN INVESTIGATION ON THE EFFECTS OF USING COGNITIVE AND METACOGNITIVE STRATEGIES TO ENHANCE UNIVERSITY STUDENTS' READING SKILLS

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This study aimed to find out the students' current situation regarding their use of reading strategies while they read texts written in English, and to investigate to what extent cognitive and metacognitive strategy training increases the students' reading strategy use. The Participants were 27 preparatory class students aged between 18 and 21 years old. The study was conducted at Inonu University in Malatya, Turkey. The data collection procedure consisted of two periods. The first period was carried out during the last four weeks of the first semester in 2015-2016 academic year. The second period was completed during the first four weeks of the second semester in 2015-2016 academic year. In the first period of the reading strategy instruction, the researcher mainly focused on cognitive strategy training and in the second period on metacognitive reading strategies.

The methodological approach taken in the study was a mixed methodology based on a case study. In order to triangulate the data, both quantitative and qualitative methods were used. Qualitative data collected from the follow-up semi-structured interviews, think-aloud protocol, learner and researcher's diaries were descriptively analyzed. Quantitative data were imported into SPSS version 2.0, and then statistically analyzed. The findings of the study revealed that the students increased their strategy use after an eight-week strategy training program. A future study investigating metacognitive reading strategies was suggested to be conducted over a longer period of time.

Keywords: Case Study, Cognitive Reading Strategies, Metacognitive Reading Strategies, Reading Comprehension, Reader Typology.

ABBREVIATIONS

SORS	: Survey of Reading Strategies
GLOB	: Global Reading Strategies
PROB	: Problem Solving Strategies
SUP	: Support Reading Strategies
TAP	: Think Aloud Protocol
UEE	: The University Entrance Exam
ESL	: English as a Second Language
ELF	: English as a Lingua Franca
L1	: Mother tongue
L2	: Second Language

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CHAPTER I

1. INTRODUCTION

1.1. Global need of English

Five percent of the world's population speak English as their first language: but English is a second language for one billion people (National Geographic Learning, 2013). It is a great number to speak a language as a second language. That is why English is called as a Lingua Franca (ELF). People need English globally to interact with social, cultural and academic purposes. Therefore, to have an adequate reading skill is the prerequisite for academic research studies. Huang (2006) explains that learners may be in a position to read for various reasons, but they have similar needs that should be fulfilled for them to provide the learning effort, that is reading. As teachers, we should train the language learners to use their competences in order to interpret the text they read.

1.2. Purpose of Reading

More time is spent teaching reading than any other skills. Worldwide, literacy serves as a mark of an educated person and even after years of education, there are still those who are still unable to read or write an adequate standard. Depending on our purpose for reading a piece of information, we all employ different reading strategies. We find and store the information given. We do this on a daily basis, whether for pleasure, for example; while reading a novel, we are more likely to take our time by reading slowly and carefully while savouring the details. On the other hand, unlike when reading for pleasure, when we read to look for a specific piece of information, we tend not to read in such focused detail. Instead, we scan the written information until our attention falls upon what is sought (Nunan, 1999). Alternatively, when we read in order to verify information that is already known to us, we neither read the written information in detail or by scanning. Rather, we skim read. According to Davies (1995), both skimming and scanning are superficial forms of reading of which their main purpose is to search the text rather than to process its information and content (as cited in Nunan, 1999).

As teachers, we need to train our students with a various number of strategies on the grounds of cognition approach. When the students accomplish to acquire the strategies they are instructed, they will be fluent readers. Fluent readers do not need to make a plan, but can make immediate decisions and interchangeably, whenever necessary, use different strategies. Accordingly, if the students are exposed to an interaction with 'the supportive teacher' they will improve their proficiency level of strategy use, and this makes them cope with the tasks even they are challenging (Palincsar and Brown, 1984). Strategy instruction within the academic texts enables the students to get the acquisition of metacognitive skills which give them the awareness of how, when, and where to use the incoming strategies (Mayer, 1998).

1.3. Background of the Study

Reading comprehension is a process which simultaneously extracts and constructs the meaning of a text. Comprehension can be divided into three parts as the reader who does the comprehending, the text that is being comprehended, and the activity that is part of the comprehension (Schoenbach, Greenleaf & Murphy, 2012). For a reader to be successful at comprehension, they must possess cognitive capacities, the necessary motivation, and sufficient knowledge, for example, of the overall topic of the text. Texts can be difficult or easy, depending largely on the relationship between the content of the text and the abilities and knowledge of the reader. Other contributing factors leading to the successful comprehension of a text is the type of activity which is applicable to that text and appropriate and adequate instruction. Second language learners and instructors need to follow a number of strategies in order for adequate language acquisition to take place. This view was supported by Williams et al. (2015) who argued that the language learners should use appropriate learning strategies, where needed, to improve their language use. The teachers also need to follow appropriate methods to instruct their students.

Bearing in mind that the understanding of language has changed in the last three decades, the researcher of the study with two and half-decade experience was exposed to most of those changes. She has tried to adjust her teaching according to methodological changes. In the early years of her career, she was a structural teacher like her role models. Over time, she shifted her approach of teaching from structuralism which viewed language learning as acquisition of a finite number of rules, to

constructivism where language learning is assumed driven by communicative needs (Brown, 2007). Meanwhile, as a follower of Rogers, the advocator of learner-centred instruction, the researcher has always created a non-threatened environment in her classroom. According to Rogers, teachers are facilitators of learning, and they do this through interpersonal relationships with learners (Brown, 2007). Then, the researcher changed her methodology from mostly communicative to the direction of communicative and cognitive approach due to the instruction she got in MA classes the previous year. Throughout her teaching career, the researcher had experienced that reading and understanding of a written text in English was a challenging task for the language learners. The researcher observed that although the students were mostly proficient readers of the texts written in L1, and were able to apply relevant reading strategies to that, they were not necessarily able to apply those strategies to the texts written in L2. Consequently, having realized the students' need for strategy training, the researcher aimed to find ways of helping her students to cope with the issue.

1.4. The Context of the Study

This present study was conducted in the context of teaching English as a foreign language to preparatory class students at Inonu University, in Malatya, in Turkey. Inonu University was established in 1975 as a state university, and it has been assumed as one of the highly respected and well-established universities in Turkey. Dated from its establishment, it has improved rapidly and has become the greatest educational institution in the region. Inonu University provides education to 30.000 students involving 13 faculties, as one of them state conservatory, 4 colleges, 12 vocational schools, 5 institutes, 1 techno city and 19 research and practice centers. Inonu University is located in the East part of Turkey. The majority of the students are easterners as relating to the location of the university. The preparatory school has about 25 classes, and each class has almost 25 students.

1.5. Significance of the Study

Undergraduate students have reached the understanding of how important proficiency is in reading for academic success and future professional life. In order for them to reach a high level of proficiency, they should be taught strategies both cognitive and metacognitive to enhance their learning experiences. The teacher, as the mediator of

the learning process, needs to help the students how to learn language in a similar way that “young children learn their mother tongue by observing their caretakers and interacting with them” (Kim & Yoon, 2012, p. 214).

Reading is an integrative skill in learning English along with writing, speaking and listening. Along with the changes in understanding of language, however, there has been an increasing concern over teaching cognitive and metacognitive reading strategies. Learners need to be taught how to read and develop their reading abilities through some reading materials using the appropriate strategies. This study has provided an exciting opportunity to advance both the researcher’s and the participants’ knowledge of cognitive and metacognitive reading strategies. Throughout the study, the researcher, as the instructor of the sampling group, and the students have improved their understanding of reading comprehension of an English written text. Keene & Zimmermann (2013) state “the beauty of the comprehension strategies is that they give teachers a way to make explicit and visible the thinking that goes on in the minds of good readers” (p. 605).

1.6. Purpose of the Study and Research Questions

It has been observed that traditional ESL teachers used to give a paragraph and ask some comprehension questions to be answered for the reading activities. (Stoller, Anderson, Grabe, & Komiyama, 2013). This approach was unavoidable to be tedious to the learners. However, course materials were designed in that context. The researcher of this study has experienced that the reading sections of the text books were mostly related to the grammar topic and the vocabulary list of the unit which was irrelevant to the learners’ background knowledge. In recent years, text book editors have changed their ways according to the post methodology. They have attentively started choosing topics relevant to the learners’ background, and helped them to consider what they already know about and what strategies are applicable. Anderson (2009) states “capable readers need a repertoire of reading strategies and the ability to apply them in meaningful combinations, at the right times, to achieve their reading goals” (as cited in Stoller et al., 2013). A learner can only be proficient in reading after certain learning strategies have been adopted. According to Nuan (1999), in order to understand what we read, we need to activate various knowledge sources already stored in our mind. The

teachers, as the mediators of the learning process, need to activate these knowledge sources for successful reading to take place.

Guiding this study was the work of O'Malley & Chamot (1990) and Oxford (1990) who stressed the significance of using cognitive and metacognitive learning strategies in order to enhance learning. The researcher of the present study attempted to find the answers to the following research questions:

1. What type of reading strategies do the preparatory class students use while reading a text written in English?

2. Is it possible to increase the number of the reading strategies that the learners use through involvement in cognitive and metacognitive reading strategy raining in English classes?

1.7. Operational Definitions

Schema Theory: Shortly, previous knowledge in 'one's mind. "This previously acquired knowledge is called the reader's background knowledge, and the previously acquired knowledge structures are called schemata (Bartlett et al., 1932, as cited in Carrell & Eisterhold, 1983, p. 556).

Reading Comprehension: Reflection of interaction between the reader's background knowledge and the text and the writer (Carrell & Eisterhold, 1983).

Bottom-up Approach: Reading as a process of decoding of written symbols (Gough, 1972).

Top-down Approach: To start reading with an overall idea (Spiro, 2013)

Good Reader: A reader who makes use of various strategies to comprehend a text during reading comprehension process (Brown et al. 1982).

Poor Reader: A poor reader is one who has been unable to apply such strategies when trying to comprehend a text (Çubukçu, 2008).

Learning Strategies: They help learners to organize and manage the ways in which they learn and, therefore, reach a proficient level in reading (Oxford, 1990; Cohen, 1995; O'Malley & Chamot, 1990).

Think-aloud Protocol: “A verbal report or think aloud protocol is produced when a reader verbalizes his or her thought processes while completing a given task” (as cited in Yaylı, 2010, p.236).

Activate Background Knowledge: Activating background knowledge helps access information about the world already acquired in order to relate it to the topic. This makes it easier to understand and learn new information (Marzano, 1991)

Ask if it Makes Sense: Asking if it makes sense helps to keep track of your progress and helps to identify problems. This is applicable to all types of tasks, particularly more challenging ones (Chamot et al., 1999).

Ask Questions to Clarify: Asking questions to clarify involves the learner asking for explanation, verification, rephrasing, or examples, which helps in solving comprehension and communication problems (Chamot et al., 1999).

Check Goals: Checking goals is when a learner decides whether or not his or her goals in the task have been met. This, for example, helps learners to decide whether they should rephrase or add information (O'Malley & Chamot, 1990).

Cooperate: Cooperation is required when a task requires team work or whenever a learner needs feedback. It involves working with other learners and is useful for practicing and for sharing your strengths, so that all learners can be more efficient in their learning (Kim & Yoon, 2012).

Deduction and Introduction: This strategy involves the application of the learner's knowledge of rules concerning grammar, morphology, and phonology to help understand and accurately use language.

Directed Attention: This can be used whenever a learner feels distracted during a task. It involves making a conscious decision to focus all attention to the task in order to control learning. Directed attention, therefore helps a learner increase their level of concentration by developing ways to ignore mental, physical and environmental distractions.

Evaluating Strategies: That kind of strategies are used after completion of a task, and they are used to allow students to assess whether they reached their goals for the task,

and if not, why, and how they might do the task the next time (O'Malley & Chamot, 1990).

Evaluate Yourself: Evaluating yourself deciphers whether or not a learner understood or used the language in a task, helping in identifying strengths and weaknesses, so that a similar task in the future can be better carried out. Evaluating strategies help a learner to decide which strategies work best for them so that suitable strategies can be chosen in the future (Oxford, 1990).

Inference: Inferencing requires the learner to guess what something might mean, helping to quickly solve problems without needing another person or reference.

Manipulate or Act out: Manipulating or acting out such as role playing, a situation helps a learner to contextualize language which help to create mental links with information, helping a learner to remember.

Metacognition: Learners' awareness of their own cognitive process, and the ability to monitor and control their acquisition process of learning (Flavell, 1979).

Monitoring Strategies: These are the strategies used by learners to measure their effectiveness while learning. They do this by monitoring how they are doing as they work, and then by making adjustments as necessary. The following monitoring strategies help learners to regulate their learning (Palincsar & Brown, 1984).

Organizational Planning: Organizational Planning, such as brainstorming words, phrases and information in a topic gives learners direction and ensures completion of the task by organizing and thinking beforehand to develop a plan for the organizational sequence of the content. This strategy also reduces anxiety and builds confidence in learners.

Personalize and Contextualize: Personalizing and contextualizing involves connecting information received to the learner's own experiences which makes the content more meaningful and memorable. It should be noted, however, that cultural differences may arise (Politzer and McGroarty, 1985).

Predict: Prediction involves thinking of the words, phrases and information that the learner can expect to be needed in order to complete the task. This gives learners

direction in order to familiarize the learner to certain types of information (O'Malley & Chamot, 1990).

Problem Solving Strategies: These strategies are used when good learners experience difficulties during a task, for instance, if they do not know the meaning of a word, they make an educated guess based on other given information, or by looking it up in a dictionary (Krashen, 2000).

Selectively Attend: Selective attention is particularly helpful when trying to understand or give specific information as it requires focusing on specific information to help a learner perform the task. By focusing on information a learner already knows, a learner can understand and communicate better and by focusing on what a learner does not know, will help to identify problems and increase learning (Oxford, 1990).

Self-Management: Self-management focuses on how a learner best accomplish a task, by paying attention to what he or she already knows to help understanding and being understood.

Self-Talk: Self-talk is helpful in tackling nervousness during speaking or when taking a test. It involves positive affirmations such as "Do not give up" or "Go on". This strategy enables learners to do more than they think possible, because even if they cannot do all of a task, they can probably do at least some of it (Chamot et al., 1999).

Set Goals: This can be applied to all types of tasks to help learner identify their purpose in completing a task. It focuses on what the learner want from the task, therefore allowing him or her to further plan accordingly (Williams, Mercer, and Ryan, 2015).

Substitute: Substitution is used when a learner does not know how to communicate something, but they know another way to communicate something by relying on language already learnt.

Summarize: Summarizing can be used when a learner wants to check their understanding or communication. It requires creating a gist of the overall content, or the main points in order assess whether or not those are understood. This can be done by creating a mental, oral or written summary of the information.

Take Notes: Taking notes is particularly useful when needing to remember or having to refer back to complex information by writing down key words or concepts in abbreviations, graphic or numerical form.

Use Imagery: Using imagery creates mental links with images to help the learner remember information (Gagne & White, 1978).

Use Resources: Using resources, such as dictionaries, the Internet and textbooks is useful, especially if no other source of help is available to a learner and can help solve complex problems such as an unfamiliar verb structure (Chamot et al., 1999).

Verify Predictions and Guesses: Verifying predictions and guesses requires the learner check whether their guesses and predictions were met while completing the task. This is useful for deciding how well a learner's background knowledge related to the new information (Chamot et al., 1999).

In this study, the terms 'participant', 'student', and 'learner' are used interchangeably, also the terms 'researcher', instructor' and 'teacher'.

1.8. Design of the Study

This study involves five chapters:

Chapter one contains global need of English, purpose of reading, background, context and significance of the study, then it concludes with the purpose of the study, research questions and operational definitions.

Chapter two, first gives a brief synopsis of reading comprehension. Then, it follows the language learners' typology, language learning strategies, metacognitive model of strategy learning, schema theory, bottom-up and top-down approaches.

Chapter three is concerned with the methodology used for this study. It involves research design, the setting and the participants, data collection instruments, procedural details of two-period reading strategy instruction, an eight-week cognitive and metacognitive strategy instruction, data collection and data analysis.

Chapter four presents the findings and discussion of the data gathered from both qualitative and quantitative instruments.

Chapter five includes the discussion and implications of the eight-week strategy training program. Finally, the limitations of the study and suggestions for further research are identified.



CHAPTER II

2. LITERATURE REVIEW

2.1. Introduction

This chapter first presents an overview of reading comprehension, and then schema theory, bottom-up and top-down approaches, typology of language learners. Following the language learning strategies, it ends with the metacognitive model of strategy learning,

2.2. Reading Comprehension

What is reading? In short, reading is producing meaning from a written text and its visuals. However, a broader explanation has been offered by Moreillon (2007) who argues that “reading is not simple” and adds that reading demands practice and skill, so is, therefore, an action process (p.10). She also asserts that when proficient readers are confronted with a difficulty while reading, they rely on certain reading comprehension strategies in order to solve the problem. While dealing with a reading comprehension test, readers need to activate various knowledge sources already stored in their mind to understand the text, and answer the questions related to the text.

Although written English is assumed as a receptive skill like listening, recent investigations in literature have revealed that both skills need a process in learners’ mind like the productive skills required in writing and speaking. In Kendeou, Smith & O’Brien’s terms, successful reading comprehension depends on repeated unification of information in the “reader’s memory” (2012, p.854). Reading is a complex process of problem solving in which the reader works to make sense of a text not just from the words and sentences written but also from the ideas and knowledge conveyed by those words and sentences. Although at first glance reading may seem to be a passive and simple process, it is in truth active and complex. From this point of view, Geva & Ramirez (2015) assert reading comprehension is a complex activity that one can make meaning from while reading with the purpose of enjoyment or to get information.

Learners need to be taught how to read and develop their reading abilities through some reading materials. McDonough, Shaw, & Masuhara (2013) explain how some reading materials are inauthentic and have been designed with the intention of

drawing the learner's attention to the structural usage of the text rather than its authenticity adding that many teachers still work with these type of materials. Spiro (2013) explains that we read and write various types of texts considering our reasons in real life interaction, outside the classroom (see Table 2. in Chapter III). However, it is obvious that teachers do not use many of these texts in the classroom to teach English, they only use a few of them.

Tomlinson (2013) also highlights the significant differences between 'Intensive reading' and 'Extensive reading'. According to him, intensive reading texts are above learners' current level, and they are mostly associated with academic research studies. 'Intensive reading' requires closer attention to grammar, vocabulary and detailed analysis of the text. It is an overwhelming process for the readers. On the other hand, Tomlinson (2013) describes 'Extensive reading' as "naturalistic, relaxed and enjoyable rather than some kind of pedagogical ordeal to be undergone" (167). In order to attain academic success, and for their future professional life, undergraduate students are exposed to such extensive reading materials.

2.3. Schema Theory

McDonough et al. (2013) propose that "another major contribution to our knowledge of reading, with many implications for the classroom, is provided by Schema theory", and they also add the schema theory the plural of which "schemata also allow us to predict what may happen" (p.119). According to the Schema theory (Bartlett, 1932, cited in Nunan, 1999), by using schemata, learners develop a mental bridge between the reading text and their previous knowledge. This means comprehension is the reflection of interaction between the reader's prior knowledge and the content of the text. When we read a text written in English, but from a different culture, we may have difficulties in activating our schema as a result of cultural background which is based on 'Content Schema'. Smith (1983), citing Krashen (2011), claims the prediction to be innate, and adds that we always predict from the setting what is going to happen next. Moreillon (2007) also points out, "predictions are educated guesses about what will happen next based on what is known from reading the text; prediction can also involve readers' background knowledge (p.76). McGeoch (1933) states "this theory calls attention clearly to the active and constructive character of remembering" (p. 775-776). Learners activate their schema by utilizing their cultural

background knowledge to comprehend a written text (Snow, 2002). According to Pearson (2008), “today’s new knowledge is tomorrow’s background knowledge” (as cited in Harvey & Goudvis, 2013, p. 437).

We are exposed to some problems during the day, and overcome the problems by predicting. Smith (1983) also adds that correct predictions are the confirmation of appropriate perception and comprehension as well; to confirm our prediction, we utilize the data from the outside world. “Prediction is only hard”, Smith (1983) explains, when we are bewildered. In reading classes, this happens when text are incomprehensible or devoid of interest. In normal reading, we predict all the time” (cited in Krashen, 2011, p. 388). In order to make learners understand what they read, teachers need to activate their knowledge sources already stored in their mind for successful reading comprehension. According to Carrell & Eisterhold (1983), both bottom-up strategies and top-down strategies are closely tied to the schema theory. They set apart the two by highlighting that bottom-up strategies are data-driven, whereby top-down strategies are conceptually driven.

2.4. Bottom-up and Top-down Approaches

In order to understand the text they read, learners basically use two processing strategies which are called as higher-level processing and lower-level processing. These higher-level processing strategies are often referred to as ‘top-down’ strategies and lower-level progressing strategies which are referred to as ‘bottom-up’ strategies. Both ‘top-down’ and ‘bottom-up’ strategies have emerged with the influence of Schema Theory (Carrell & Eisterhold (1983). In ‘bottom-up’ reading, we look at the relation between words creating a phrase, then the relation between phrases creating sentences, and then the relation between sentences to make a clause, and this process continues. Learners need to start with decoding the smallest unit; letters, syllables, words and then they try to understand the meaning of the whole.

On the contrary, in ‘top-down’ reading, we start with the overall idea, and then step by step we analyze the details. In order to attach meaning, we have to make use of our previous knowledge. The ‘Top-down’ process needs background knowledge and cultural experiences. Both ‘Formal Schema’ and ‘Content Schema’ are relevant to the ‘top-down’ reading process. The purpose of ‘top-down’ strategies is to activate the learner’s schema.

Spiro (2013) asserts that “second language readers need to become skilled at ‘orchestrating’ the strategies which are needed for each reading situation”, and adds that learners need a strategy training in order to use these two types of reading processes; top-down process and bottom-up process (p.116).

The bottom-up process regards reading as a process of decoding of written symbols. According to this processes (Gough, 1972), there are two approaches we employ when we do this. One is the phonics approach and the other, the whole word approach. The phonics approach teaches sound-symbol correspondence; i.e., that letters represent sounds and are decoded by a reader by matching written symbols to their equivalent sound. The whole word approach teaches word by their overall configuration. The phonic approach, in particular, has come under scrutiny (as cited in Liu, 2010). Smith (1978), a noted critic of this approach, asserts that regarding speech, individual sounds that exist in a word can only be properly deciphered after the whole word has been processed. Also, it has been proposed that context plays a key role when reading and when predicting the meaning of a word. Because of these reasons, Smith (1978) favours an alternative approach, referred to as the Top-down approach or the psycholinguistic approach to reading (cited in Nunan, 1999).

The top-down approach includes elements of the whole word approach which is present in the bottom-up approach which, in short, suggests that fluent readers recognize the whole words on sight. However, the starting point in these approaches is that the reader predicts the meaning of the text before reading it in any detail. Then, the reader confirms his or her predictions by reading the text. Therefore, the top-down approach proposes that reading is a process of reconstruction rather than a process of decoding as suggested by the bottom-up. The top-down approach would employ methods of decoding only if reconstruction fails. In response to this disparity, Nunan (1999) suggests that a phonics approach, as suggested in the bottom-up approach, is important in the early stages of learning how to read, and that it is an effective and efficient way to teach and learn reading. After that stage, different individual readers adopt different strategies in order to meet their unique needs. Nunan (1999) further builds a bridge between the two strategies by proposing that reading is an interactive process in which the reader shuffles between bottom-up and top-down approaches in order to construct and interpretation of a given text. Basically, Nunan (1999) suggests that reading is an interactive process whereby the reader switches between the two

approaches and that the bottom-up approach is particularly useful in the formative years in learning to read. After that, a combination of the two is used.

2.5. Language Learners

We need to consider a brief synopsis of language learners can offered by Rubin before we go over the typology of readers. Rubin (1975) said all individuals were capable of easily learning the language used in the community they were born. She also pointed out that while some language learners were good at second language learning, but some of them were poor. Rubin suggested identifying the strategies which were followed by those successful learners, and teach them to poor ones. She defined the good learners as successful guessers, inference makers, and clues users. According to Rubin, good language learning depends on three variables: “aptitude, motivation, and opportunity” (1975, p.42). As cited in Ellis (2015), “Carroll saw language aptitude” is determined by the time taken by a student to learn a given task (p. 39). According to Ellis (1985), “aptitude refers to the special ability a learner has for learning a second language” (p.293). Krashen (2000) also claimed that some learners had the special aptitude to understand the target language. The second variable according to Rubin is motivation. As teachers, we need to demand the use of the language in the classroom as reading alone does not suffice. Macnamara (1971) acknowledged the deficiency of motivation in the classroom for language learning and added that the streets were better places for language learners. In contrast to Macnamara, Rubin (1975) argues that good language learners are motivated to use the target language, no matter where they are. Likewise, Ellis (2015) holds the view “a learner’s motivation is influenced by other learners; the dynamics of classroom or of a learning group affect the extent to which individual learners are motivated, both overall and when performing specific tasks” (p. 55). The third variable, opportunity, enables the language learners to practice what they have learned. As Rubin noted that good language learners will create opportunities to use the language which he or she has learnt, where poor learners will merely passively conduct what has been assigned (1975). Grenfell & Harris (1999) pointed out “if we can find out what good language learners do, then maybe we can tell the other learners in order to improve their chances (p. 46).

What makes a good reader different from a poor reader is the fact that good readers are the fluent readers, and they can spontaneously use a number of strategies to

understand what they read. Good readers and poor readers use different reading strategies when they comprehend a text (Spring, 1985). A good reader makes use of various strategies to comprehend a text during reading comprehension process (Brown et al. 1982). He or she receives new information through the text and integrates it with his or her own previous knowledge. A good reader does not mean highly skilled at his or her reading speed. McLaughlin (1969) claimed to have a high- speed reader, but did not claim that the reader was more skilful than the others in comprehending the text (as cited in Carver, 1985). Cubukcu, (2008) pointed out that the poor readers are unable to use the right strategies where required, and are unable to monitor their reading comprehension process. In a study which set out to determine good and poor readers' awareness, Garner (1980) found "good readers noticed the disruptive effect of the altered material and poor readers did not" (p. 55). Grenfell & Harris (1999) suggests that poor readers should be given the reasons for their comprehension failure because they are deficient in their strategy use.

2.6. Language Learning Strategies

Krashen (2000) defines language learning as the ability of awareness on target language rules and adds that language acquisition is to improve the ability of target language use in a natural environment. As noted by Krashen (2000), "according to research in second language acquisition, it is thought that acquisition can take place only when people **understand** messages in the target language" (p. 19). In her major study, Oxford (1990) explained learning as the conscious use of the target language regarding its rules, on the other hand, acquisition as the unconscious use of it.

A considerable amount of literature has been published on language learning strategies. Traditionally it has been argued that language learning strategies are the actions and behaviors learners make use of to enhance their understanding of a second language (Oxford, 1990; Cohen, 1995; O'Malley & Chamot, 1990). In 2015, Ellis reported the process of language learning strategies "they start out as conscious but subsequently, as a result of continuous use, become automatic and unconscious" (p. 57). "Rebecca Oxford one of the leading teachers and researchers in the language learning strategies field" (Nunan, 1999, p. 172) listed twelve key futures of strategies below (Oxford, 1990, p. 9).

Table 1. Features of Language Learning Strategies (Oxford, 1990, p.9).

1. Contribute to the main goal, communicative competence.
2. Allow learners to become more self-directed.
3. Expand the role of teachers.
4. Are problem-oriented.
5. Are specific actions taken by the learner.
6. Involve many aspects of the learner, not just the cognitive.
7. Support learning both directly and indirectly.
8. Are not always observable.
9. Are often conscious.
10. Can be taught.
11. Are flexible.
12. Are influenced by a variety of factors.

According to Oxford, relevant learning strategies focus on attaining communicative competence amongst learners. She mentions that this can be done in either general or specific ways and done in order to encourage the development of communicative competence. The aim of these strategies is to help learners to participate actively in authentic communication, by using meaningful and contextualized language to create realistic interaction amongst learners (Oxford, 1990). Rubin also defined the strategies as the techniques followed by the learners to get the information (1975). Williams, Mercer & Ryan (2015) clarify language learning strategies in five groups as “cognitive strategies, which are mental processes learners use”, socials strategies, that is used to interact with others, compensation strategies “as they compensate for a lack of knowledge of the language”, affective strategies which are used “to regulate their emotions”, and metacognitive strategies “used to regulate and control the learning process” (p. 124). Cognitive strategies and metacognitive strategies are the vital points of the present study. Macnamara (1971) explained language learning process at different stages in a sequent;

“babies pick up their mother tongue with what seems like great ease, and young children in suitable environments pick up a second language with little trouble, whereas adults seem to struggle ineffectively with a new language and impose the phonology and the syntax of their mother tongue on the new language” (p.480).

Oxford (1990) argues that direct and indirect strategies have an interrelationship which provides equal and mutual support to one another in order to enhance learning. From Oxford's point of view (1990), direct strategies directly deal with new language and consists of a combination of memory, cognitive and compensation strategies. Memory strategies are used for remembering and retrieving stored information. Cognitive strategies are used for understanding and reproducing language; compensation strategies are used when using the language in spite of knowledge gaps. Indirect strategies are a combination of three strategies, namely, metacognitive, affective and social strategies. The metacognitive strategies, serve to coordinate and manage learning processes, such as organizing, guiding, checking, correcting, coaching, encouraging and cheering the learner, while ensuring that the learner effectively cooperates with other learners. She also assumes the interrelationship between direct and indirect strategies as can be likened to that of performer-director relationships that exist in the theatre performance, where the director (indirect strategies) coordinates and manages the performer (direct strategies employed by the learner).

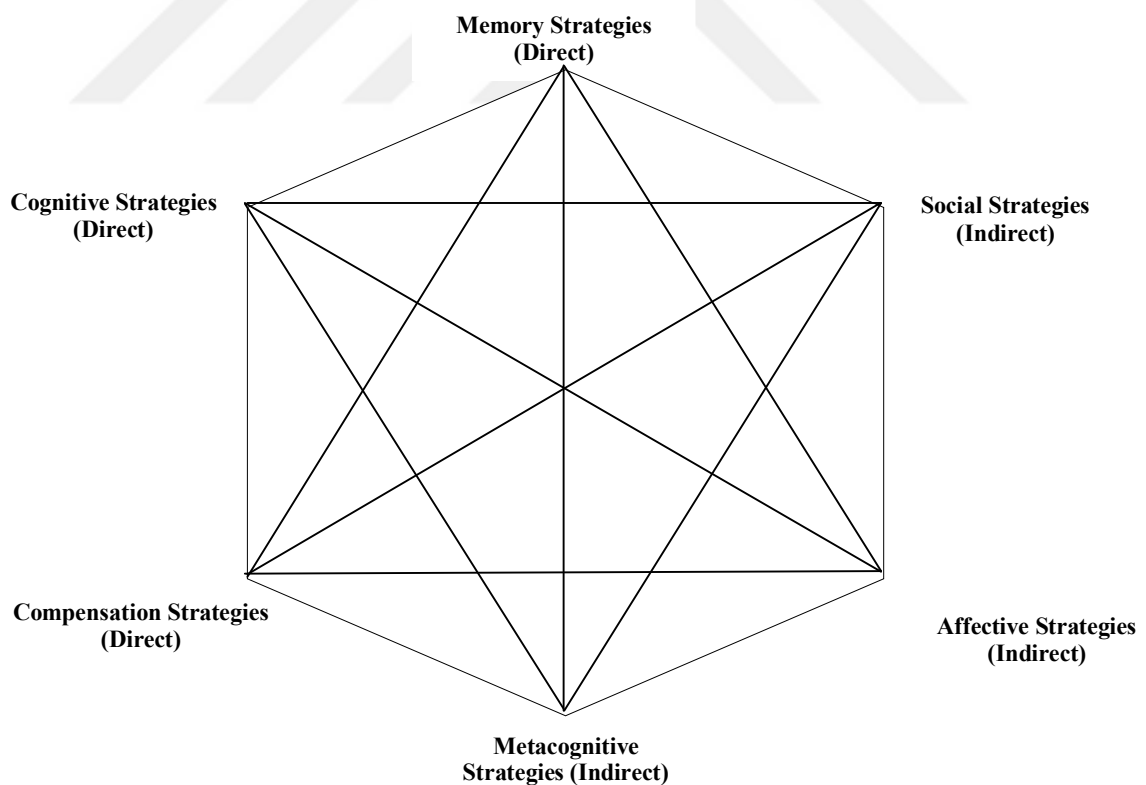


Figure 1. Interrelations Between Direct and Indirect Strategies and Among the Six Strategy Groups. (Oxford, 1990, p.15).

Oxford (1990) gathered the strategies in two main classes as shown above in figure 1. She draws our attention to direct and indirect strategies and highlights “these two classes are subdivided into a total of six groups (memory, cognitive, and compensation under the direct class; metacognitive, affective, and social under the indirect class)” (1990, p.15). O’Malley et al. (1985a) also explain that learning strategies can be set apart into three distinct groups depending on the type of processing involved. These groups are: ‘metacognitive strategies’, ‘cognitive strategies’, and ‘social/affective strategies’ (cited in O’Malley & Chamot, 1990). As O’Malley & Chamot (1990) state among these three, ‘social/affective’ strategies are concerned with the influence of social and affected processes on learning. For example, with peer interaction and asking questions for clarification, the aim is to attain a common goal in learning (Dansereau et al. 1983 and Slavin, 1980, cited in O’Malley & Chamot, 1990). These strategies can be bracketed under “co-operative learning” which has been proved to enhance learning on comprehension tasks (Dansereau et al. 1983, cited in O’Malley & Chamot, 1990).

2.6.1. Cognitive Learning Strategies

According to Weinstein and Meyer (1986), cognitive strategies seek to manipulate the incoming information in a way that would optimize learning through rehearsal, organization; and elaboration processes. Such processes may in themselves be combined with other processes which may rely, in varying degrees, on prior knowledge stored in the learners’ long-term memory, for example, when summarizing, deducing, inferencing and transferring (cited in O’Malley & Chamot, 1990). Likewise, Ritter et al. (2007) claim that cognitive learning is to put the newly information upon the present one in long-term memory. Lewis & Hurd also (2008) state “**Cognitive strategies** are direct strategies used to orchestrate the mental processing of a target language” (p.72). Brown and Palincsar (1982) point out that cognitive strategies are more involved with individual tasks which require more manipulation of materials to reach a sounder understanding of the content (cited in O’Malley and Chamot, 1990).

On the ground of cognitive theory, Rabinowitz and Chi (1987) assert “strategies must be conscious in order to be “strategic”; consequently, they should no longer be considered as strategic behavior once they are performed automatically” (cited in O’Malley & Chamot, 1990, p.52). According to Oxford (1990), cognitive strategies are

the mostly applied strategies by the language learners, and a combination of four strategies, namely, practicing, receiving and sending messages, analyzing and reasoning, and creating a structure for input and output. Among them, ‘practicing strategies’ are the most important ones to make the students foster the formulas and patterns of the language through many repetitions. ‘Receiving and sending messages’ strategies such as skimming and scanning strategies are used to grasp the main idea quickly, or lift the specific information from a text. ‘Analyzing and reasoning strategies’ are those that learners use to create a mental bridge between incoming information and the previous knowledge in their mind. The last group of strategies Oxford highlights is creating a structure for input and output strategies which are used for such as underlining the focused information, taking notes, or summarizing the paragraph to comprehend.

2.6.2. Metacognitive Learning Strategies

As cited in Cubukcu (2008) “one of the first definitions of metacognition comes from Flavell (1976), who describes it as ‘one’s knowledge concerning ‘one’s own cognitive processes and products or anything related to them’” (p. 83). In one of his following studies Flavell (1979), classified metacognition as cognitive monitoring which involves interrelations between four phases of the process, namely ‘metacognitive knowledge’ is that one’s awareness of his or her cognitive learning processes compared to the other learners, ‘metacognitive experiences, which are one’s ideational initiations’, ‘goals (tasks)’ which are the instruments for cognitive attempts, and ‘actions’ which are the behaviours, used for achievement, related to mental process. According to O’Malley & Chamot (1990), the term metacognition “has been used to refer to knowledge about cognition or the regulation of cognition” (p. 99). Garner & Alexander, (1989) defined metacognition as “knowing about knowing” (p. 147). McLoughlin & Hollingworth, also define metacognition as the learners’ awareness of their own cognitive process, and the ability to monitor and control their acquisition process of learning (2002). Brown et al. (1982) also explain the term metacognition in one of their major works; the term metacognition “refers to two distinct areas of research, namely knowledge about cognition and regulation of cognition” (p. 92). These are, indeed, closely related, and each compliments each other; one cannot stand alone without the other.

Brown et al. (1983) further define metacognitive strategies as “higher order executive skills that may entail planning for, monitoring, or evaluating the success of a learning activity” (as cited in O’Malley & Chamot, 1990, p. 44). Research in metacognitive and cognitive learning strategies recommends that transferring and pairing of the two strategies should be used in order to maximize or enhance learning. However, transferring between the two strategies is an issue which is yet to be resolved (Chamot, O’Malley & Kupper, 1987). Lewis & Hurd claims metacognitive strategies as to be “indirect strategies used to monitor the self when engaged in an activity such as reading” (2008, p.72). Macaro (2006) asserts that high proficiency level learners tend to use a range of metacognitive strategies, so as to enhance their proficiency (cited in Ellis, 2015). O’Malley & Chamot (1990) set apart the learning strategies into three distinct groups: cognitive strategies, which are more involved with individual learning tasks, and social/affective strategies, which are concerned with the influence of social and affected process on learning, and “metacognitive strategies involve thinking about the learning processes, planning for learning, monitoring of comprehension or production while it is taking place” and they also add, subsequently, there is self-evaluation which takes place after the task has been completed (O’Malley & Chamot, 1990, p. 8).

Table 2. Preliminary Classification of Learning Strategies

Generic strategy classification	Representative strategies	Definitions
Metacognitive strategies	Selective attention	Focusing on special aspects of learning tasks, as in planning to listen for key word or phrases.
	Planning	Planning for organization of either written or spoken discourse
	Monitoring	Reviewing attention to a task, comprehension of information that should be remembered, or production while it is accruing
	Evaluation	Checking comprehension after completion of a receptive language activity, or evaluating language production after it has taken place
Cognitive strategies	Rehearsal	Repeating the names of items or objects to be remembered.
	Organization	Grouping and classifying word, terminology or concepts according to their semantic or syntactic attributes.
	Inferencing	Using information in text to guess meanings of new linguistic items, predict outcomes, or complete missing parts
	Summarizing	Intermittently synthesizing what one has heard to ensure the information has been retained.
	Deducing	Applying rules to the understanding of language.
	Imagery	Using visual images (either generated or actual) to understand and
	Transfer	Using known linguistic information to facilitate a new learning task.
Social/affective strategies	Elaboration	Linking ideas contained in new information or, integrating new ideas with known information.
	Cooperation	Working with peers to solve a problem, pool information, check notes, or get feedback on a learning activity.
	Questioning for clarification	Eliciting from a teacher or peer additional explanation, rephrasing or examples.
	Self-talk	Using mental redirection of thinking to assure oneself that a learning activity will be successful or to reduce anxiety about a task.

O'Malley & Chamot, classified learning strategies (1990, p. 46).

As can be seen from the table above, O'Malley & Chamot (1990) set up a model of four metacognitive processes which involves: "selective attention, planning, monitoring, and evaluation" (p. 46). Students need to experience those processes to learn a language. Ellis (1994) assumes those strategies to have an executive function, and adds the importance of learners' motivation in the strategy use frequency. Oxford and Nyikos (1989) realized that "the degree of expressed motivation was the single most powerful influence on the choice of language learning strategies" (cited in Ellis, 1994, p. 542).

2.7. Metacognitive Model of Strategy Learning

Over one hundred learning strategies have been identified by researchers which may help students to learn (Rubin, 1981; Stern, 1975; Wenden, 1987b; Oxford, 1986; O'Malley & Chamot, 1990; Chamot & Kupper, 1989; O'Malley et al., 1985a; Chamot et al., 1996; Cohen, 1990; Rost & Ross, 1991, as cited in Chamot et al., 1999). However, application of these strategies by a teacher or practitioner is not so straight forward as problems may arise in interpretation, and use of these strategies inside the classroom. Weinstein & Mayer (1983) explained "good teaching" as making the students be aware of the way to learn, remember, think and motivate themselves, and according to them, teachers should have the intention to teach the students what to learn and how to learn. The metacognitive model, however, provides practitioners and students with an approach to help them, by organizing the strategies in such a way that they are manageable and can be used for reading, listening, writing and speaking, as well as for retention of vocabulary and content information. Almost every section that has been written on the metacognitive model of strategy learning was cited in Chamot et al., (1999). The model consists of four metacognitive processes: Planning, Monitoring and Problem solving Evaluating.

2.7.1. Planning

"Planning is a crucial first step toward becoming a self-regulated learner" (Chamot et al. 1999, p. 14). Planning strategies help to develop and apply forethought and encourage thinking. It allows the learner to narrow their focus and access previously acquired knowledge, depending on their extent or their ability, and allows them to plan what additional information they need to create a better understanding. Good learners think about how they are going to approach and carry out the task in

order to meet their objectives. This process can be visited throughout a task, although it always should start at the beginning. The following are some of the most effective planning strategies: *Setting Goals* helps the learner identify their purpose in completing a task. It focuses on what the learner wants from the task, therefore allowing him or her to further plan accordingly. According to Williams, Mercer, and Ryan (2015) each individual has goals to achieve; *Directed Attention* involves making a conscious decision to focus all attention on the task in order to control learning, therefore, helps a learner increase his or her level of concentration by developing ways to ignore mental, physical and environmental distractions. Oxford (1990) assumed “directed attention as equivalent to concentration” (p. 154); *Activating Background Knowledge* helps access information about the world already acquired in order to relate it to the topic. According to Marzano (1991), linking old information to incoming one makes easier the comprehension; *Prediction* involves thinking of the words, phrases and information that the learner can expect to be needed in order to complete the task; *Organizational Planning*, such as brainstorming words, phrases, and information in a topic gives learners direction and ensures completion of the task by organizing and thinking beforehand to develop a plan for the organizational sequence of the content; *Self-Management* focuses on how a learner best accomplishes a task, by paying attention to what he or she already knows to help understanding and being understood.

2.7.2. Monitoring Strategies

Another strategy used in the metacognitive model of strategic learning is monitoring, which are strategies used by learners to measure their effectiveness while learning. They do this by monitoring how they are doing as they work, and then by making adjustments as necessary. The following monitoring strategies help learners to regulate their learning: *Asking if it makes sense* helps to keep track of your progress and helps to identify problems. This is applicable to all types of tasks, particularly more challenging ones; *Selective attention* is particularly helpful when trying to understand or give specific information as it requires focusing on specific information to help a learner perform the task. Oxford claimed (1990) “selective attention involves deciding in advance to notice particular details” (p. 154); *Deduction and Introduction* involves the application of the learner’s knowledge of rules concerning grammar, morphology, and phonology to help understand and accurately use language; *Personalizing and Contextualizing* involves connecting information received to the learner’s own

experiences which make the content more meaningful and memorable. According to Politzer and McGroarty (1985), “cultural background knowledge has a great deal with the type of language learning behaviour likely to be used by students” (p. 119); *Taking notes* is particularly useful when needing to remember or having to refer back to complex information by writing down key words or concepts in abbreviations, graphic or numerical form; *Using imagery* creates mental links with images to help the learner remember information. Gagne & White (1978) claimed that if the images were added during the process of comprehension, the verbal items would be easily stored; *Manipulating or acting out* such as role playing, a situation helps a learner to contextualize language which helps to create mental links with information, helping a learner to remember; *Self-talk* is helpful in tackling nervousness during speaking or when taking a test. *Cooperation* is required when a task requires team work or whenever a learner needs feedback.

2.7.3. Problem Solving Strategies

A further strategy in the metacognitive model of strategic learning is problem solving strategies, composed of four strategies, namely inference, substitution, asking questions to clarify and using resources. Problem solving strategies are used when good learners experience difficulties during a task, for instance, if they do not know the meaning of a word, they make an educated guess based on other given information, or by looking it up in a dictionary. Or if they do not know how to say something they may think of another way to say it: *Inferencing* requires the learner to guess what something might mean, helping to quickly solve problems without needing another person or reference; *Substitution* is used when a learner does not know how to communicate something, but they know another way to communicate something by relying on language already learnt; *Asking questions to clarify* involves the learner asking for explanation, verification, rephrasing, or examples, which helps in solving comprehension and communication problems; *Using resources*, such as dictionaries, the Internet and textbooks is useful, especially if no other source of help is available to a learner and can help solve complex problems such as an unfamiliar verb structure (Chamot et al., 1999).

2.7.4. Evaluating Strategies

Finally, evaluating strategies are used after completion of a task, and they are used to allow students to assess whether they reached their goals for the task, and if not, why, and how they might do the task the next time. This can be done in five ways, namely by verifying predictions and guesses, summarizing, checking goals, evaluating yourself and by evaluating your strategies: *Verifying Predictions and Guesses* requires the learner check whether their guesses and predictions were met while completing the task, *Summarizing* requires creating a gist of the overall content, or the main points in order assess whether or not those are understood; *Checking goals* is when a learner decides whether or not his or her goals in the task have been met; *Evaluating yourself* deciphers whether or not a learner understood or used the language in a task, helping in identifying strengths and weaknesses, so that a similar task in the future can be better carried out. Evaluating strategies help a learner to decide which strategies work best for them so that suitable strategies can be chosen in the future (Chamot et al., 1999). Oxford (1990) explained evaluating reading speed or comprehension as a reading skill self-evaluating process.

CHAPTER III

3. METHODOLOGY

3.1. Introduction

The purpose of this study was to explore the preparatory class students' current situation regarding their use of reading strategies while they read texts written in English. The study also aimed to investigate to what extent cognitive and metacognitive strategy training increases the students' reading strategy use. This chapter firstly presents the research design of the study. Then, it respectively explains the setting and the participants, data collection instruments including research questions, the procedural details of two-period reading strategy training, and ultimately, elaborates the each week implementation of the reading strategy training.

3.2. Research Design

The methodological approach taken in this study is a mixed methodology based on a case study. Case study is an action plan, which takes the researcher from the initial phase of the research to the final phase of the research. Merriam (2002) mentioned that in a case study, a phenomenon is deeply analyzed and interpreted. Furthermore, a case study is a logical statement that makes connections between the research questions, the data and the findings. Ayiro (2012) stated, "usually, case studies and historical studies are qualitative in nature although, on certain occasions, they may employ quantitative procedures" (p.21).

Onwuegbuzie & Leech (2004) explained that as the third research paradigm, the mixed methodology assists in providing a bridge between qualitative research and quantitative research. As taking the advantages of mixed methodology, the researcher in the present study had the opportunity to use both qualitative and quantitative research methods for the benefit of her research questions. Creswell (2013, p. 35) gives a brief description of three major components for research as it is reflected below in Figure 1. According to Creswell (20013), researchers should take account of "philosophical worldview assumption" in their studies (p.34).

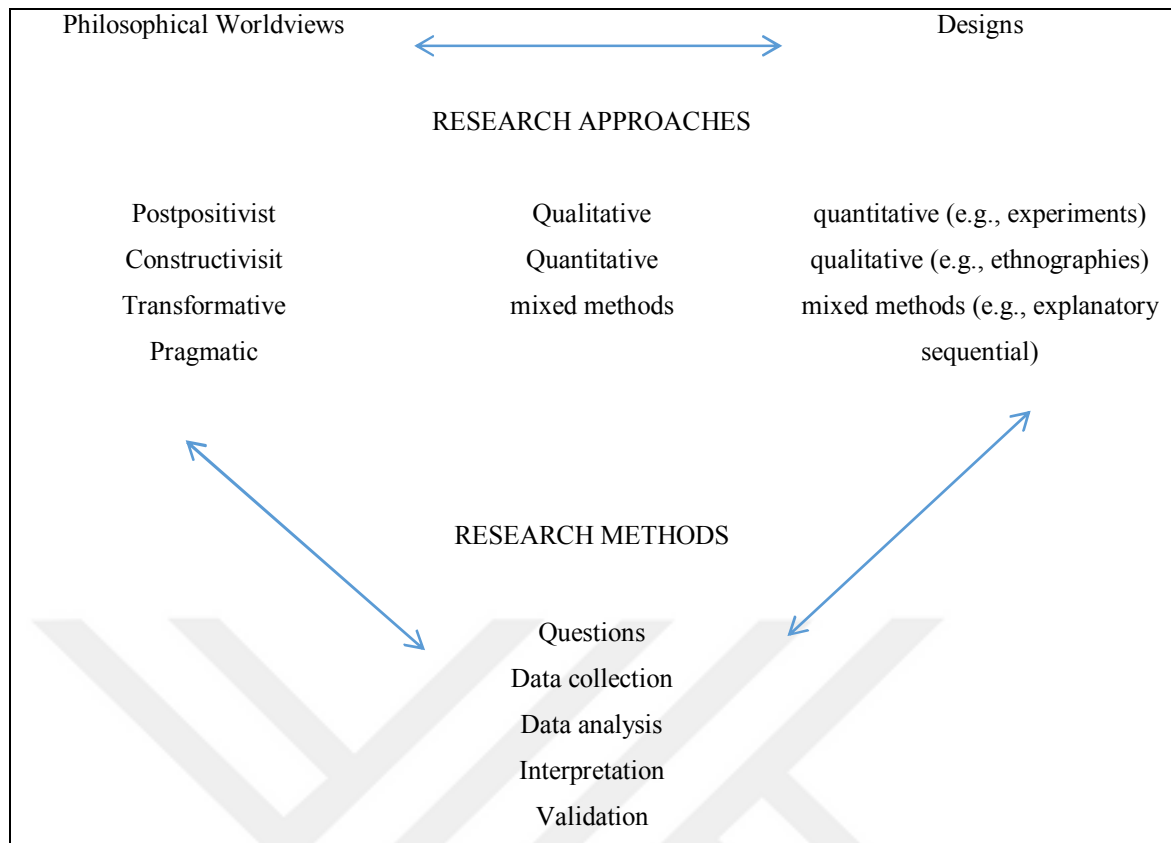


Figure 2. A Framework for Research – The Interconnection of Worldviews, Design and Research Methods (Creswell, 2013, p. 35).

Ayiro (2012) lists three reasons regarding the advantages of mixed methodology to be used in a research:

1. The strength of the research;
2. Use of multiple methods in a research helps to research a process or a problem from all sides;
3. Usage of different approaches helps to focus on a single process and confirms the data accuracy. A mixed research complements a result from one type of research with another one. This research does not miss any available data (p. 490).

Mixed method research design makes sense of data gathered from qualitative and quantitative approach. “Mixed methods researchers are more able to utilize quantitative research to inform qualitative portion of research studies, and vice versa” (Onwuegbuzie & Leech, 2004, p. 771).

Qualitative research studies a case using the natural process in a natural setting. The qualitative method relies on the interpretations of data as gathered from

observations, interviews and diaries. Furthermore, qualitative research approach does not take account of certain measurements while collecting data. The researcher can take part as a participant in qualitative research. Taking the advantage of qualitative research method, the order of data collection phases can be changed by the researcher for the benefit of the study. As Merriam (2002) claims data collecting and data analyzing processes concurrently take place in qualitative research. In other words, a researcher does not need to wait for data collection to be completed for data analysis.

The use of quantitative method is a well-established approach to analyzing numbered data depending on previously prepared instruments (Creswell, 2013). Quantitative method is very much related to the certain measurements, while qualitative method depends on interpretations of data such as observations, interviews, and other qualitative instruments. “Quantitative research is a means for testing objective theories by examining the relationship among variables. These variables can be measured, typically on instruments, so that numbered data can be analyzed using statistical procedures” (Creswell, 2013, p. 295).

This study concerns the triangulation of both quantitative and qualitative approach. Gorard & Taylor (2004) identified triangulation as to be a simple form of method combination and also added “we are concerned with triangulation in mixed-methods approaches, such as those involving both traditionally quantitative and qualitative techniques” (2004, p.43).

3.3. The Setting and the Participants

This study was conducted in 2015/2016 academic year at Inonu University in Malatya, Turkey. The participants of the study were a group of students studying in a preparatory class at Inonu University School of Foreign Languages in Malatya. All of the students in the class were placed according to the results of a placement test that they took in the beginning of the first semester. Thus, all the subjects were assumed to be at the same level, as beginner. The class consisted of 27 students with the age range between 18 and 22. Among 27 students, 14 of them were male and 13 of them female. The students’ mother tongue was Turkish. As they were evening education students, the lessons started at 5 pm., and finished at 9.25 pm. on weekdays. Most of the participants were graduated from public high schools or vocational public high schools in different parts of Turkey, but mostly in east or southeast of Turkey. Most of the participants

expressed that they did not have the opportunity to practice English outside of the classroom, and some of them added that they did not have any English language teachers until they became undergraduate students. Except one male student who was from Mechanical Engineering, the rest of the students in the class were compulsory preparatory class students. English preparatory class is compulsory for some of the departments in Inonu University, but any students at a certain level of language proficiency have the right to take this course as an additional year before their undergraduate education starts. The participants have a total of 24 hours of English language instruction a week consisting of 15-hour classes Main Course, 5-hour Speaking and Listening skills, and 4-hour Reading and Writing skills class. The present study was conducted in 4-hour Reading and Writing skills class.

The researcher took part in the research as a participant. The researcher, having 25-year experience in the institution, was familiar with the setting in which the study was conducted. Throughout her teaching career, the researcher had experienced that reading and understanding of a written text in English was a challenging task for the language learners. Consequently, the researcher aimed to find ways of helping her students to cope with the issue. The researcher had graduated from English Language Teaching department, and her teaching philosophy is ‘successful teachers have successful students’. She always considers herself to be a humanistic teacher.

3.4. Data Collection Instruments

The data in the present study was collected using both qualitative and quantitative data collection instruments for the purpose of exploring what type of reading strategies the participants’ use and to identify whether the number of the reading strategies that they use could be increased through involvement in cognitive and metacognitive reading strategy training in English classes. More specifically, the following research questions guided the study:

1. What type of reading strategies do the preparatory class students use while reading a text written in English?
2. Is it possible to increase the number of the reading strategies that the learners use through involvement in cognitive and metacognitive reading strategy raining in English classes?

Figure 2. presents the data collection instruments used for each research question all of which are further explained in the following sub-sections.

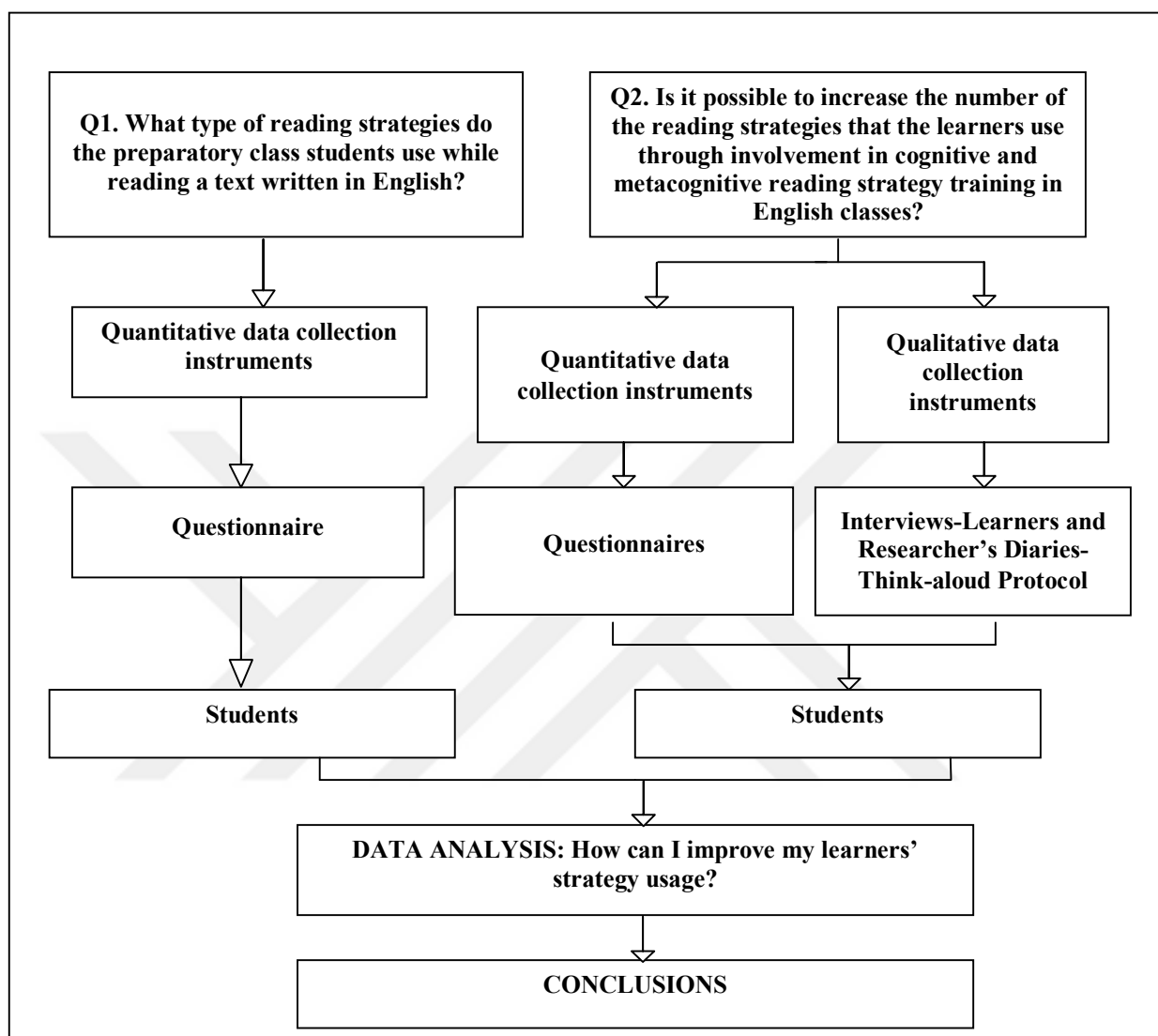


Figure 3. Research Questions and Related Data Collection Instruments

As shown in Figure 2, a questionnaire was used in order to find the answer to the first question (see Appendix 3). The answers to the second research question were gathered through both quantitative and qualitative data collection instruments. These were questionnaires (see Appendix 3 and Appendix 4), researcher and learners' diaries, interviews (see Appendix 1), and think-aloud protocol.

3.4.1 .Qualitative Data Collection Instruments

Follow-up semi-structured interviews, researcher's diary, learner's diary, and think-aloud protocol were used to collect the qualitative data of the study.

3.4.1.1. Follow-up Semi-structured Interviews

Interviews are instruments to collect data from one individual or more to obtain perceptions and feelings of the participant(s) about a certain subject. This view is supported by Chamot (1999) who writes that it is an appropriate way to “identifying students’ learning strategies” (p.131). Seidman (2006) draws our attention to the demographic criterion of participants in the interviews and emphasizes that if the interviewee is below a certain age, this instrument does not work. Participants in this study were appropriate to be interviewed regarding their ages.

In this study, we conducted follow-up semi-structured interviews with the students once in the first period and once in the second period of the study. The aim of using follow-up semi-structured interviews was to give the learners a space to express their personal opinions to the open-ended questions using their own words, phrases, and sentences. It also provided the researcher the flexibility to change the order of the questions depending on the type of response she elicited from the learners. Moreover, the researcher, as the primary instrument (Ayiro, 2012 and Merriam, 2002), had face-to-face interaction with the students in the study. Follow-up interviews were administered at the end of each period. Random sampling strategy was employed when choosing the participants for the interviews due to the large number of the students in the class. Random sampling strategy is defined as indiscriminately selecting random members of the population which allows the results of the study to be applied to the larger population (Maykut & Morehouse, 1994).

The follow-up semi-structured interview was conducted in Turkish and it consisted of 5 questions for the first implementation, and 6 questions for the second implementation since a diverse number of questions with contents were asked for each interview (see Appendix 1). The interviews took place in the researcher’s office that was in the same building as the classrooms after each period involved four-week training programme. The interviews recorded and transcribed later were rich sources to collect data (Willis, 2008).

3.4.1.2. Researcher and Learners Diaries

As Bailey (1991) noted both teachers and learners can make use of diaries to keep their experiences, perceptions, and observations. Data gathered from diaries

provides deep understanding to the researcher about the learning process. Fry (1988) claimed, “Reporting on how one is doing a task while doing it is a double task” (as cited in Bailey, 1991, pp.63). On the other hand, Bailey (1991) argued that diaries enable awareness to the researcher about learning process in the classroom, and does not allow overlooking any worthy information that may be crucial for the study.

The researcher’s diary was kept to record her in-class observations, and the informal conversations that took place in the classroom setting regarding the researcher’s perceptions of the participants’ attitudes toward the implementation of strategy training on weekly basis. According to Fry (1988), the use of diaries in a combination with other data collection instruments, such as interviews, provides more valuable data than numeric ones to the researcher, in addition, this method allows for triangulation of the research findings.

In the present study, the students were also asked to keep a learner diary to record their own experiences and interpretations of involvement in cognitive and metacognitive reading strategy use during the second period of the instruction. The participants were asked to record whether they were capable for transitioning from one strategy to other when there was a need, furthermore, which strategy they mostly used, and which one better worked. The students were also assigned to read short stories prescribed by the syllabus for the preparatory class, and they gave the review of each story through an outline prepared before on a sheet (see Appendix 2). The participants had the opportunity to monitor and evaluate their process of strategy use while keeping diary based on the short stories.

3.4.1.3. Think-aloud Protocol

Traditionally, think-aloud protocols had been used to gather verbal data from participants while they were on task (O’Malley & Chamot, 1990). Verbal data enriches the authenticity of the other data as Ericsson & Simon (1980) mentioned, “When verbal reports are collected con-currently with other records of behaviour, it becomes possible to check the consistency of the reports with the other behaviour” (p. 247). Through think-aloud protocol, having reflected their cognitive processes, participants say whatever comes to their mind as responding the questions that are related to the task on hand. Data collection process may start without prior training on account of some data collection instruments such as questionnaires and interviews (O’Malley & Chamot,

1990). Nevertheless, think-aloud protocols require prior training in order to raise the awareness of the participants on what to report and how to report (Creswell, 2013). Ericsson & Simon (1987) recommended prior training of participants to prevent failing on verbalization of what strategies they follow during the process of problem solving (as cited in O'Malley & Chamot, 1990).

In this present study, think-aloud protocol (TAP) was administered to the students in the fourth week of the first period. As O'Malley & Chamot (1990) suggested, think-aloud protocol was conducted in participants' native language based on the fact that the learners can better express their feelings and considerations in their native language. Think-aloud protocol was conducted to collect verbal data from the participants same as the semi-structured interviews. However, there were two major differences for the researcher in the implementation of these instruments. The first one was that the semi-structured interviews were done in the researcher's office to save in class teaching time, but TAP was carried out in the classroom setting to make the students involved in the activity. The second one was that the semi-structured interviews involved open-ended questions to learn the participants' feelings and perceptions on the quality of the texts and the benefits of the reading strategy-training program, which were implemented during the course. On the other hand, TAP was carried out to explore the participants' strategy use and their perceptions and feelings about the task on hand. The reading text used for TAP was about Galileo Galilei-the father of modern science (see Appendix 6), and it was obtained from New Headway Elementary Workbook (Fourth Edition) by Liz and John Soars (2011).

3.4.2. Quantitative Data Collection Instruments

Data, for use in the quantitative method approach, were collected through The Survey of Reading Strategies (Mokhtari & Sheorey, 2002) (see Appendix 3), and The Survey of Self-Evaluation Questionnaire (Oxford, 1990) (see Appendix 4).

3.4.2.1. Survey of Reading Strategies (SORS)

The Survey of Reading Strategies Questionnaire (SORS), an instrument developed by Mokhtari and Sheorey (2002), was implemented twice; once before the strategy training program started, and once after the strategy training program was over. The aim of the first implementation of the survey was to explore the number and the

type of reading strategies the participants use to comprehend a text. The aim of the second implementation was to find out whether there would be an increase in the number of the metacognitive reading strategies the participants use after involvement in the reading strategy training program. The Survey of Reading Strategies Questionnaire was applied to the participants in order to provide credibility to the study. In addition, “A survey design provides a quantitative or numeric description of trends, attitudes, or opinions of a population by studying a sample of that population” (Creswell, 2013, p.201).

The Survey of Reading Strategies (SORS) by Mokhtari & Sheorey (2002) consists of 30 items on a 5-point Likert type rating scale, in which participants rate 1 as never or almost never use, 2 only occasionally use, 3 sometimes use, 4 usually use, and 5 always use the reading strategies (see Appendix 3). Mokhtari & Sheorey (2002) classify the “SORS” under three subscales: Global Reading Strategies (GLOB) with 13 items, Problem Solving Strategies (PROB) with 8 items, and Support Reading Strategies (SUP) with 9 items.

3.4.2.2. The Survey of Self-Evaluation Questionnaire

The Survey of Self-Evaluation Questionnaire is an instrument originally designed by Oxford (1990). It consists of four language learning skills self-evaluation parts. In the present study, the reading part of the survey was separately implemented to the students in order to reveal their perceptions of their progress in reading. The participants gave themselves a rating on reading by circling one of the three statements based on the previous four questions as they answered for their progress.

3.5. Procedural Details of Two-Period Reading Strategy Instruction

The reading strategy instruction consisted of two periods. The first period was carried out during the last four weeks of the first semester in 2015-2016 academic year. The second period was completed during the first four weeks of the second semester in 2015-2016 academic year. In the first period of the reading strategy instruction, the researcher mainly focused on cognitive strategy training and in the second period on metacognitive reading strategies.

3.5.1. The First Period of the Reading Strategy Instruction

In order to consider her students' strengths and weaknesses, the researcher did not launch her study for ten weeks. During that period, the researcher created a non-threatening environment with her belief "positive relationship improves students' behaviours and motivates them to learn as well as to seek academic achievement" (Kutluturk, 2016, p. 28). The students were explicitly informed that they would have strategy training on reading comprehension.

In the first period, as the action process, The Survey of Reading Strategies (Mokhtari & Sheorey, 2002) was implemented to the participants for the first time to explore their current awareness of using metacognitive reading strategies to comprehend a text. Having analyzed the data gathered from the survey, the researcher identified the strategies to be instructed.

The students were informed about various types of reading materials. However, "pre-reading, while-reading", and "post-reading" processes were conducted through the texts in student's course book '*UNLOCK; Reading & Writing Skills*' (Ostrowska, 2014). The researcher's diary was recorded after each two-hour session during the first period. Think-aloud protocol was implemented to the participants as an in-class activity, and semi- structured interviews were conducted with the four random selected students as an out of class activity, in researcher's office, at the end of the first period.

The researcher realized during the observation process that the students had difficulty in guessing the meaning of unknown words. For that reason, she sometimes shifted her instruction to vocabulary teaching. Through the researcher's diary, it was observed that the participants needed to be instructed on the use of reading strategies.

Think- aloud protocol also guided the instructor about which strategies were used or not used by the students. It also helped the researcher to learn which strategies the participants acquired, and which strategies needed to be instructed in more details during the reflection process. As noted by Farrell (2001), "it takes time" to make students capable of the intentionally use of reading strategies, and instructor may come up with an unexpected problem to be managed during the process (p. 645). The end of the first period was the end of the first term as well.

3.5.2. The Second Period of the Reading Strategy Instruction

Throughout the second period, the strategy instruction continued with the texts mostly provided by the researcher with the aim of preparing the students to deal with texts from real life. In 2013, McDonough and et al. reported traditional reading classes as using a text to teach the students new vocabulary and grammar rules, but not to teach them how to improve reading comprehension proficiency.

The student's course book '*UNLOCK; Reading & Writing Skills*' (Ostrowska, 2014) was part of the official syllabus and was perceived as a good choice by the researcher. The researcher defined 'top-down process' and 'bottom-up process' providing an overview of the differences between good readers and poor readers. In the second period, students as participants were asked to keep a learner diary to record their strategy use and observations on the process. The researcher utilized learners' diaries and her diary to observe the process of strategy instruction, and adjust the procedure to be followed when necessary.

Semi-structured interviews were conducted the second time with diverse students from the first session to understand their reflections on strategy instruction. The reading part of The Self-Evaluating Questionnaire, developed by Oxford (1990, p.183) was implemented to the participants, so as to learn what their consideration was about their proficiency level for reading (see Appendix 4). Final data collection implementation of the instruction was "The Survey of Reading Strategies" (Mokhtari & Sheorey, 2002) to learn whether the participants adapted to use metacognitive reading strategies they practiced for eight weeks (see Appendix 3).

3.6. An Eight-Week Cognitive and Metacognitive Strategy Instruction

There were two primary aims of this eight-week cognitive and metacognitive strategy instruction: to explore the students' current situation of using reading strategies while comprehending a written text (1); to ascertain the possibility of improving learners' strategy use by training them to use cognitive and metacognitive reading strategies in English classes (2). Each phase of the study was conducted following Oxford's "eight-step model for strategy training" considering the participants' current level to be assessed (1990, p.204).

Table 3. Steps in the Strategy Training Model (Oxford, 1990, p.204).

-
1. Determine the learners' needs and the time available.
 2. Select strategies well.
 3. Consider integration of strategy training.
 4. Consider motivational issues.
 5. Prepare materials and activities.
 6. Conduct "completely informed training."
 7. Evaluate the strategy training.
 8. Revise the strategy training.
-

3.6.1. Week 1 Sessions

The primary data collection instrument of the study, The Survey of Reading Strategy (Mokhtari & Sheorey, 2002) was implemented to the participants at the beginning of the study in an attempt to explore their current awareness of using metacognitive reading strategies to comprehend a text in the first week. Afterwards, participants were informed about the strategy training as following Oxford's (1990) advice:

Research shows that strategy which fully informs the learner by indicating why the strategy is useful, how it can be transferred to different tasks, and how learners can evaluate the success of the strategy is more successful than training that does not (p. 207).

The instructor, as the researcher of the study, used the opportunity of the eight-week qualifying period to identify the types of strategies that the students need to be taught. The instruction began by raising the participants' awareness of genre analysis so as to identify where the reading material comes from. Thereupon, the students could be able to make use of genre analysis to attach meaning to the text they read. The students were allowed to discuss the types of the real reading texts they read in daily life considering their reasons. The participants had an elaborate discussion on what they read to inform, to advice, to follow instructions, to amuse, to keep in touch, to explore what is happening in the world, to make contact, and to record feelings. Meanwhile, the researcher observed their mostly encountered reading materials and recorded them in her diary at the end of the session. The participants were informed about the reading

texts written in different genres through the table designed by Emmitt, Komesaroff & Pollock (as cited in Spiro, 2013, p.112) to raise their awareness for reading activities.

Table 4. What we read/write and why we read/write (derived from Emmitt et al. 2006, P. 32)

Reason for writing /reading why read	Type of text
To inform and advise	Wikipedia reference books, dictionaries, catalogues, travel guides, websites, wikis notices, invitations, prospectuses.
To follow instructions	Instructions, guides, manuals, recipe books, rule books, stage directions
To amuse or entertain	Poems, short stories, plays, reviews, graded readers, jokes, riddles, anecdotes
To keep in touch, to explore and maintain relationship	Emails, Twitters, weblogs, blogs, postcards notes, letters, memos, text messages, face book messages
To know what is happening in the World	Newspapers, news reviews, online news Maps , tour guides, announcement, TV and
To find out when and where	film schedules, railway timetables, school timetables, travel itineraries, programmers
To make contact, network, develop a Career	Application letters , curriculum vitae, websites Advertisement
To record feelings ,observations	Personal letters, poems, diaries, journals
To persuade	Manifestos, campaigns, advertisement
To clarify thinking	Note-taking, mind maps, diagrams, jottings
To predict or hypothesize	Research abstracts, horoscopes

(Emmitt et al. **cited in** Spiro, 2013, p. 112).

3.6.2. Week 2 Sessions

In the first session of the second week, the participants were given a brief synopsis of cognition and metacognition regarding strategies they were about to expose. The term cognition for language learning was explained as ‘one’s consciousness to know what to do when he or she was on a task, and following some researchers the term metacognition was defined as “cognition of cognition” (Carrell, Pharis, & Liberto, 1989, p.647). In this manner, the students were informed about the importance of both cognitive and metacognitive strategies. Metacognitive strategies were explained in the light of Oxford’s (1990) idea as being beyond cognitive strategies as regulating them during the learning process.

The students were introduced a list of reading strategies designed by Janzen (as cited in Spiro, 2013, p.117). Information contained in Table 5 below was presented to the participants: These reading strategies occur at three stages; ‘before reading’, while reading’, and ‘after reading’. Looking at the title and guessing the content of the text is a ‘pre reading’ strategy. Making use of the discourse markers, such as first, second, next, finally, and trying to follow the flow of the idea in the text are ‘while reading’ strategies. Rereading, speaking about the text, evaluating what has been read and explaining the receiver’s agreement or disagreement with the idea are some ‘after reading’ strategies.

Table 5. Students’ accounts of reading strategies (Janzen cited in Spiro, 2013, p. 117)

Before reading	While reading	After reading
• Predict • Ask question about the author • Skim: look at Picture and headings • See if I find the title interesting • Look at the question	• Check prediction about the text • Underline • Use the dictionary • Guess • Translate • Connect reading with what I already know • Connect previous parts to what I’m reading	• Take notes • Reread • Think about text structure • Check for answers to questions • Evaluate whether I like/agree with the text

In the second session of the week, the students were informed about the while reading strategies: ‘skimming’ and ‘scanning.’ Then the students practiced these strategies using a text from their course book (Ostrowska, 2014) material that involved extracts from a popular history book; the contents page, a map and part of a chapter of which were shown on a web page from a bookseller’s website. The text was similar to an authentic material (see Appendix 7). The aim of skimming was to help promote quick and efficient reading. The participants were asked to pass quickly over the text, glance at key words, and get a general idea of what the text was about. Afterwards, the following questions were asked: Where is the text from? What is the book about? What is the price of the book? What does the picture in the text show?

Scanning was introduced as a technique to read a text quickly, but apart from skimming, to pick out specific information from the text. Before moving on the practice activity, the instructor modelled how to scan a text using the first question in the activity. Then, the students were asked to run their eyes up, down, diagonally across the text focusing on the listed items, the table of contents, keywords, and capital letters in names. The instructor modelled eliciting the first answer as an example of the activity. Afterwards, the researcher recorded her experiences, and her observations of the session in the researcher’s diary.

3.6.3. Week 3 Sessions

The primary concern of the third week was to present and practice while-reading and after-reading strategies assuming the students to be aware of skimming and scanning strategies from the previous week training. In order to foster scanning strategy, the first session of the week started with practice to scan some authentic materials such as; a menu to find the price of preferred food, timetables for a train and a plane to see the departure and arrival time of a specific destination, a film schedule to pick up the performance time of a film, and a conference guide to quickly find out the time and place of an interested presentation.

The second session of the week continued with a text firstly skimmed, scanned, and then read in detail. The text was from their course book (Ostrowska, 2014) that was designed like a magazine article about sport in Brazil (see Appendix 8). A time limit was set to make sure that the participants could scan and answer the questions in a short time. They scanned the keywords with capital letters to find out the names of the sport

people and special sport events in the text. Afterwards, the students were asked to focus on the statements and decide which statement was about which sport activity. They also filled in the gaps with the words from the text. During those activities, the participants read the text for details. The instructor asked them some questions related to the text in order to make them use their world knowledge, and then the participants were introduced to the ideas map as a follow up activity for the post reading strategy. The researcher, as the instructor, considered the ideas map as an appropriate instrument for the students to monitor their learning processes. Following the advice stated in the course book, *'UNLOCK: Reading & Writing Skills'* (Ostrowska, 2014) the researcher demonstrated how the ideas map could be gradually created by outlining one with the main topic in a bubble 'Top 5 Sports' on the board. Then, the participants individually accomplished completing it on a sheet. The students were told to use different colours for different sets of information (see Appendix 5). The researcher, as the instructor recorded her observations of the participants' approaches to the implementation of strategy training in the diary weekly kept to see whether the training achieved the goal.

3.6.4. Week 4 Sessions

The aim of this week was to introduce students "Think-aloud" strategy. The goal of the implementation of think-aloud protocol (TAP) was to obtain verbal data from the participants if they became aware of the strategy use while they were on a task.

In the first session of the week, without any prior training of the strategy, a reading text about Galileo Galilei-the father of modern science by Soars & Soars (2011) was distributed to the students. The students read the text silently and answered the comprehension questions on their own in twenty minutes (Appendix 6). When the time was over, the researcher, as the instructor, collected the texts so as to discuss their responses after break as a whole class activity. Although previous studies of TAPs have not dealt with the whole class activity, the researcher preferred it due to the fewer number of the students in the class that week. Chamot suggested the conduction of TAP with weak students to consider the problems, and with strength, to see what made them successful (1999). From this point of view, the researcher aimed to identify the participants' weaknesses and strengths when they were on task. Whole class activity of TAP led the participants to monitor their progress of strategy use. Afterwards, the researcher informed the participants about the think-aloud strategy. She gave a brief

synopsis of the strategy indicating that during that process they read aloud the text, and from time to time stop to think and verbalize their cognitive reflections.

The second session of the week was the time to practice the think-aloud strategy. According to O'Malley & Chamot's (1990) suggestion which was based on the fact that participants could better express their feelings and considerations in their native language, the session was conducted in Turkish, and the data was recorded to be transcribed later. As Chamot (1999) suggested, audio recorded data provided "in-depth analyses later" for the researcher. In this session, the instructor carried out the activity using a projector to display the text. Subsequently, the text was used to generate a discussion. First, she drew the students' attentions to the picture of Galileo Galilei on the text so as to activate their background knowledge about his scientific life, assuming that they studied it during their previous educational period. Thereupon, they could predict what they would read through the text. Afterwards, one of the participants was asked to read the text aloud. The following questions were asked to the students to be discussed during that process: Is the picture at the bottom a reminder to you about his invention? What was your initial thought when given the text? What did you think of the extract written at the top? What kind of problems have you encountered while reading the text? How can you cope with those problems? What did you do when you did not understand a sentence? Was the grammar or the vocabulary of the text more difficult for you? Did you try to guess the meaning of the unknown words, and if so, how?

Overall, think-aloud strategy training highlighted the need for training of vocabulary learning. The students did not know the meaning of some words such as: "Bible, blind, deaf, trial, and prison". Since the aim of the present study was cognitive and metacognitive reading strategy training, the researcher shifted her instruction not elaborately, but slightly to vocabulary teaching from time to time. For that reason, in this session, she presented some tips related to predicting the meanings of unknown words in the text in hand. Spiro (2013) asserted "many learners and linguists agree that vocabulary lies at the heart of learning a language" (p.81). As being an MA student the previous year, the instructor was aware of the recent methods of vocabulary teaching. She avoided teaching the words in a list, like her model teachers did in the past. The participants were taught the new words with an emphasis on their functions, synonyms, antonyms, pronunciations, and their collocations. The instructor asked the students to

guess the meanings of the unknown words by looking at the title, the neighbouring words and by considering the context of the text. Drawing on Matsuoka & Hirsh (2010), the researcher explained the students that the repetition of a word over several occasions and over a longer period of time (e.g., two weeks) rather than a single continuous period of time (e.g., six minutes) has a better chance of being processed into memory.

At the end of the session, four randomly selected students were invited to the researcher's office to be interviewed one by one. The Interview was conducted to get their overall idea about understanding of reading comprehension. As mentioned before, due to the class size, not all the students could be interviewed. This session was at the end of the first term, so the researcher had the advantage of the semester holiday to reconsider the strategies to be implemented in the second period of the reading strategy instruction.

3.6.5. Week 5 Sessions

This week was the beginning of the second period of the reading strategy instruction. The participants had a four-week break before the start of that session. It was previously mentioned that the students were assigned to read short stories as required by the syllabus of the preparatory class. They also had to hand in the review of each story using an outline on a sheet prepared in advance (see Appendix 2). The instructor started the first session by distributing the diaries she bought for every student. With those diaries, she asked the students which strategies they followed in order to better comprehend the last story they had read.

Next, the researcher asked the participants the following question; "What makes a good reader different from a poor reader?" Eliciting their responses, the instructor provided an explanation of the qualities of a good reader: Good readers use a number of strategies to understand the text they are exposed to. They do not make a plan before reading, but they make immediate decisions to use appropriate strategies to comprehend a text. On the other hand, poor readers are not aware of interchangeable usage of the strategies (Rubin, 1975). As McDonough, Shaw & Masuhara (2013) assert, a good reader can identify his or her strategy according to the purpose of the text to be read. If the purpose of reading is to get an overall idea, there is no need for reading the text in

details. On the contrary, if the instructional goal of the reading activity is to learn vocabulary and structure, it is necessary to read the text in detail.

In order to understand a written text, the students were introduced ‘higher level’ processing strategies and ‘lower level’ processing strategies which were also called as ‘top-down’ strategies and ‘bottom-up’ strategies (McDonough et al., 2013). According to McDonough et al. (2013) ‘top-down’ process needs background knowledge and cultural experiences. The researcher provided an overview of ‘top-down’ process, and explicitly trained the participants how to activate their schemata so as to use their background knowledge of the topic and the content of the text. She also considered Nunan (1999) who argues that “We interpret what we read in terms of what we already know, and we integrate what we already know with the content of what we are reading” (p. 256). The participants learned to link the topic of the text to their schema by looking at the visuals and pre-reading questions. At that point, they learned to use ‘top-down’ strategy when they needed to get an overall idea of the reading text. They were also taught how to use ‘bottom-up’ strategy for intensive reading. The participants were trained to use that strategy if the mechanics of the reading text were the priority. In other words, if the accuracy was more important than the message, and the aim of the activity was to teach the students structural and linguistic knowledge, for example when they were exposed to such as open-ended, fill in the blanks, or true-false questions, they learned to use ‘bottom-up’ strategy for detailed reading activity.

Following the training session of ‘top-down’ and ‘bottom-up’ strategies, it was time to practice these strategies in the second session of the week. The material for that activity was an article about tattoos (see Appendix 9) from their main course book by Hughes, Dummett & Stephenson (2014). The primary concern of choosing that article for the activity was the fact that the young adults were interested in tattoos, and they had some background and cultural knowledge about it to practice ‘top-down’ strategy. First, the instructor showed the temporary tattoo on her wrist to make the students learn the words ‘tattoo, temporary, and permanent’ then asked them to think about the parts of the body from the top of the head to the bottom of the foot in English. Afterwards, she aroused their interest and motivation by linking the topic of the text to their schema to make use of ‘top-down’ strategy, and after scanning the text, she asked following questions: Do you have any tattoos on your body? Are tattoos in fashion in Turkey? Has the man in the picture got tattoos because they are traditional in his country? Which

paragraph talks about tattoos in ancient cultures? Which paragraph talks about why modern societies have tattoos? The participants had to make use of their previous knowledge to attach meaning to the text.

In order to draw their attention to ‘bottom-up’ strategy, the participants were asked to answer true-false questions after reading the text in hand for details. They started with the smallest unit to understand the text, and so they looked at the relationship between the words, phrases, and sentences to make a clause. The students learned to make use of the discourse markers to follow the flow of the idea in the text. The researcher gave them points to search in the text, and asked some questions starting with ‘Wh’ and ‘how’. The researcher recorded her observations and reflections on her actions about the implementations of higher and lower level strategies in her diary when the session was over.

3.6.6. Week 6 Session

The first session started with a brainstorming activity on the previously learned reading strategies. The instructor made the participants remember the ways of transitioning from one strategy to another, so far as they learned, when they were on a task. In this session, the researcher focused on visualizing and using visuals strategies as following the Gagne’s suggestion in 1985, “imagery instruction should not be ignored by teachers, since these instructions are so easy to give” (cited in O’Malley & Chamot, 1990, p.49), and with the consideration that using the visuals to assist in comprehending written material. Gagne & White (1978) claimed that if the images were added during the process of comprehension, the verbal items would be easily stored. The aim of the researcher for this session was to instruct the participants how they could draw advantage from the actual visuals presented through the text, and how they could add images in case of visual absence.

The instruction of using actual visuals strategy training was conducted in the first lesson of the week. The students were mildly familiar with making use of this strategy, because some of the materials they practiced were supported with illustrations in previous times. The material for that activity was an article about new inventions (see Appendix 10) from their main course book by Hughes et al. (2014). The participants were reminded that they could use the visuals presented in the text to trigger subconscious awareness about the text. They were asked to match each visual with the

section titles in the article as a pre-reading activity. The students also used their world knowledge to activate their schema for comprehending the text in hand. They only made use of visuals to talk about the inventions. Afterwards, since the participants were aware of which one had already been invented, they had the opportunity to be introduced to the present perfect tense for practicing the structure of the text after interpreting the message from the text. In order to answer true false questions, students were asked to reread the text for details, and try to guess the meaning of the unknown words.

The aim of the second lesson of the week, was to practice adding mental images to the text without visuals. In other words, it was the time for visualizing strategy. The sample text for the instruction was taken from *Elementary Language Leader course book* by Lebeau & Rees (2008) delivered to the instructors during the course material selection time. Firstly, the instructor modeled the use of the strategy by reading out loud to the class an invitation email from Carla to a close friend with road direction of her new flat. Then, the instructor drew on the board the images she created in her mind as a road map to recall the verbal explanation of the road direction. She summarized the message by looking at the images drawn on the board.

For the next step, the students were asked to model the strategy their teacher rehearsed using another text taken from New Headway Elementary workbook by Soars & Soars (2011). The text was about John Lennon's life story. First, the researcher played the record of the text for the students to listen, and asked them to create mental images in their mind about John's life story by guessing the meaning of unknown words with the use of various techniques they previously had learned. Then, the students were distributed hard copies of the text to read silently, and asked to draw the images they mentally created on the back of the papers according to the flow of events. Finally, the participants tried to remember the verbal elements to summarize the text with the help of images they drew on the back of the paper.

As the last step of the session, the students recorded their perceptions of using both mental and actual visuals to comprehend a written material in their diaries. The researcher also recorded her class observations in her diary.

3.6.7. Week 7 Sessions

There were two aims of this week for strategy training, and both were of setting goals. The first one was to increase students' awareness to reading goals based on the Cubukcu (2008) notion "*Searching according to the goals*: I search out information relevant to my reading goals" (p. 88). In other words, the individual aimed to gain some specific information from the written material which would help them to comprehend the text. The second one was based on Oxford's (1990) terms in her book "Goals and objectives are expressions of students' aim for language learning. Students without aims are like boats without rudders" (p. 157). Following Oxford's explanation the researcher guided the students to determine their goals and objectives in reading skill.

The first session started with the explanation of how important the reading goals were in order to comprehend a written text. Having awareness of 'reading' was a purpose driven activity, the researcher described the strategy as "To be aware of the context, and read for the anticipated information, a written material could be better understood by using various reading strategies". A text from a daily newspaper 'The New York Times' was used at the thought of students' concerns and sadness about the explosion which took place in Ankara the previous day. The participants were really worried about the attack, and they were desperate to get some more information from the international press since there was a publication ban in the country. The researcher, as the instructor, projected the newspaper article on the white board from the Internet. The participants made use of all the strategies they had learnt, so as to understand the article, because they really sought after the information in it. At this stage, the students shared their understanding to justify with the other students in the class, so it was a whole class discussion. When the participants were on task, they were asked to write in their diaries what strategies they used to get the information they needed for the sake of the self-monitoring process. The researcher also recorded her observations in her diary.

The second session of this week was like a brainstorming activity. The instructor explained "Setting goals and objectives" in terms of Oxford (1990) "Goals are generally considered to be long-range aims referring to the outcome of many months or years. Objectives are short-term aims for hours, days or weeks" (p.157). Following this explanation, the instructor clarified the reading goals as to be a good reader to understand various types of texts that would take a long time. Then, the instructor, the

researcher of the present study, summarized the reading objectives as practicing the unknown words, structural and linguistic knowledge of the texts that they were exposed due to the school syllabus. The participants were reminded the reading texts written in different genres through the table designed by Emmitt, Komesaroff & Pollock (see Week 1 sessions) to raise their awareness for reading activities. Afterwards, the participants were asked to write in the diaries, what their goals were being a student in a department that used English as part of their syllabus, what type of written materials they expected to be exposed to in their professional life, and if they thought they would be a proficient reader. Secondly, the instructor asked the students to write in their diaries what their objectives were to practice the reading skill in the near future.

3.6.8. Week 8 Session

As it was the last week of the reading strategy instruction, the researcher assumed it to be an evaluation session. In the first session of the week, they carried out the text about ‘tea history’ (see Appendix 11) in their course book due to the course syllabus. Fortunately, the text was sophisticated enough to use various reading strategies they learned. The instructor told the students to discuss the questions related to the text in pairs, and then, encouraged them to share their preferences about hot and cold drinks in order to develop the reading activity into a speaking activity for the sake of skills integration. As a matter of fact, the course book was well designed for follow-up activities and integrating reading skills with speaking skills.

In the second session of the week, the students were asked to complete the reading part of The Self-Evaluating Questionnaire, developed by Oxford (1990) to learn their perceptions of their own proficiency levels for reading (see Appendix 4). The students were allowed to share their rating on their proficiency level with the other students.

The next step was the second implementation of The Survey of Reading Strategies Questionnaire (Mokhtari & Sheorey, 2002). The aim of the second implementation was to find out whether there would be an increase in the number of the metacognitive reading strategies the students use after involvement in the reading strategy training program.

3.7. Data Analysis

Using both qualitative and quantitative data collection methods provided a deep understanding to the cognitive, metacognitive, and social aspects of students' learning. The first and the second implementation of The Survey of Reading Strategies Questionnaire (Mokhtari & Sheorey, 2002) were imported in Microsoft Excel and then into SPSS version 2.0. The frequencies of both implementations for SORS were calculated and averaged to ascertain the number of the strategies the participants used before and after the reading strategy program (Magogwe, 2013). The students' responses to The Survey of Self-Evaluation (Oxford, 1990) were statistically analyzed.

The data collected from the researcher's observations in the diary were descriptively analyzed. The Think-aloud protocol and follow-up semi-structured data done in Turkish were transcribed, translated into English, coded and analyzed. The data collected from participants' reflections in the diaries were checked out and considered necessary ones were analyzed.

3.8. Summary

Good readers make use of various strategies to comprehend a text during the reading comprehension process. They receive new information through the text and integrate it with their own previous knowledge. In Kendeou, Smith & O'Brien terms, successful reading comprehension "requires the continual integration of incoming information into evolving discourse representation in reader's memory" (2012, p.854). While dealing with a reading comprehension text, readers need to activate various knowledge sources already stored in their mind to understand the text, and answer the questions related to it.

This study aimed to increase students' cognitive and metacognitive reading strategy use to comprehend the English written materials through an eight-week strategy training program. This chapter has presented the research design, the setting and the participants, data collection instruments, and eight-week cognitive and metacognitive reading strategy instruction.

CHAPTER IV

4. FINDINGS AND DISCUSSION

4.1. Introduction

This chapter presents the findings of the study. The findings are presented in two sections. The first section reveals the findings obtained from the quantitative data through the Survey of Reading Strategies Questionnaire (Mokhtari & Sheorey, 2002) (see Appendix 3) and the reading part of the Survey of Self-Evaluation Questionnaire (Oxford, 1990) (see Appendix 4). The second section presents the findings gathered through qualitative data collection sources: follow-up semi-structured interviews, learner and researcher's diaries and Think-aloud protocol. The research questions which guided the study were as follows:

1. What type of reading strategies do the preparatory class students use while reading a text written in English?
2. Is it possible to increase the number of the reading strategies that the learners use through involvement in cognitive and metacognitive reading strategy training in English classes?

4.2. Findings from Quantitative Data

The statistical findings related to the first research question are presented in this first section through the reading strategies survey. The numerical findings related to the second research question are also submitted in this section.

4.2.1. Findings from the Survey of Reading Strategy Questionnaire

As previously mentioned, Mokhtari & Sheorey (2002) classify the "SORS" under three subscales: Global Reading Strategies (GLOB) with 13 items, Problem Solving Strategies (PROB) with 8 items, and Support Reading Strategies (SUP) with 9 items. We used Mokhtari and Sheorey's (2002) interpretation when explaining the overall average scores for the SORS. Accordingly we accepted the mean 3.5-5.0 as high; mean 2.5-3.49 as medium; and mean 1.0-2.49 as low strategy use. Based on Mokhtari and Sheorey's advice, SORS was administered in one list from item 1 to 30 (see Appendix 3), in order to prevent students' confusion with the subscales. When

analyzing the process, the items were classified under related subscales, and then the average mean of each strategy use and overall mean of each subscale were statistically calculated.

The results of pre-test and post-test Global Reading Strategies which monitor students' self-awareness on reading strategy use at the current level and after the strategy training level, such as having a purpose in mind, using tables, figures, pictures, and context clues (13 items) are presented below in Table 6.

Table 6. Global Reading Strategies Pre-test and Post-test Results.

Global Reading Strategies	Test	M	SD	t	Sig.
1. I have a purpose in mind when I read.	Pre-test	4.14	.86	.150	.882
	Post-test	4.11	.84		
3. I think about what I know to help me understand what I read.	Pre-test	3.18	1.07	-.106	.916
	Post-test	3.22	1.05		
4. I take an overall view of the text to see what it is about before reading it.	Pre-test	4.03	.97	-.176	.861
	Post-test	4.07	.91		
6. I think about whether the content of the text fits my reading purpose.	Pre-test	3.03	1.12	.000	1.000
	Post-test	3.03	1.12		
8. I review the text first by noting its characteristics length and organisation.	Pre-test	3.44	1.18	.000	1.000
	Post-test	3.44	1.18		
12. When reading, I decide what to read closely and what to ignore.	Pre-test	3.48	1.15	-.120	.905
	Post-test	3.51	1.12		
15. I use tables, figures, and pictures in text to increase my understanding.	Pre-test	3.33	1.30	-.341	.736
	Post-test	3.44	1.12		
17. I use context clues to help me better understand what I am reading.	Pre-test	3.62	1.04	-.250	.805
	Post-test	3.70	.86		
20. I use typographical features like bold face and italics to identify key information.	Pre-test	2.59	1.62	-.519	.608
	Post-test	2.85	1.40		
21. I critically analyse and evaluate the information presented in the text.	Pre-test	3.66	.87	-.328	.746
	Post-test	3.74	.85		
23. I check my understanding when I come across new information.	Pre-test	3.88	.97	-.303	.764
	Post-test	3.96	.93		
24. I try to guess what the content of the text is about when I read.	Pre-test	3.92	.99	-.124	.903
	Post-test	3.96	.89		
27. I check to see if my guesses about the text are right or wrong.	Pre-test	4.07	1.07	.126	.901
	Post-test	4.03	1.12		
Overall Mean	Pre-test	3.57			
	Post-test	3.62			
N= 27					

M, mean; SD, standard deviation

The scores for each item were added up and calculated to obtain a total score, and then divided by the total number of the items. As can be seen from the data in Table 6, all the participants responded to the items in the GLOB subscale at high use with an overall mean at pre-test ($M= 3.57$) and post-test ($M= 3.62$). We observed that the students reported the highest use for I have a purpose in mind when I read (Strategy 1) with the mean of pre-test ($M= 4.14$) and post-test ($M= 4.11$), I check to see if my guesses about the text are right or wrong (Strategy 27) with the mean of pre-test ($M= 4.07$) and post-test ($M= 4.03$), and I take an overall view of the text to see what it is about before reading it (Strategy 4) with the mean of pre-test ($M= 4.03$) and post-test ($M= 4.07$).

Considering Mokhtari & Sheorey's score rating, the students also indicated that they use context clues to better understand (Strategy 17, pre-test $M= 3.62$, post-test $M= 3.70$); critically analyse and evaluate the information presented in the text (Strategy 21, pre-test $M= 3.66$, post-test $M= 3.74$); check their understanding when they come across new information (Strategy 23, pre-test $M= 3.88$, post-test $M= 3.96$), and try to guess what the content of the text is about when they read (Strategy 24, pre-test $M= 3.92$, post-test $M= 3.96$) at high level strategy use.

The results revealed medium use of important strategies such as Strategy 15 (pre-test $M= 3.33$, post-test $M= 3.44$) and Strategy 20 (pre-test $M= 2.59$, post-test $M= 2.85$) where they use tables, figures, and pictures in text to increase their understanding; and typographical features like bold face and italics to identify key information. The results of Strategy 12 (When I reading, I decide what to read closely and what to ignore) reported medium use with the mean of pre-test ($M= 3.48$) and high use with the mean of post-test ($M= 3.51$). Nevertheless, as the p value was bigger than 0.05 ($p < .905$), no significant difference was found between the students' current level strategy use and after training strategy use

Table 7. Support Reading Strategies Pre-test and Post-test Results.

Support Reading Strategies	Test	M	SD	T	Sig.
2. I take notes while reading to help me understand what I read.	Pre-test	3.62	1.11	.000	1.000
	Post-test	3.62	1.11		
5. When text becomes difficult, I read aloud to help me understand what I read.	Pre-test	2.51	1.08	.000	1.000
	Post-test	2.51	1.08		
10. I underline or circle information in the text to help me remember it.	Pre-test	3.85	1.02	.122	.904
	Post-test	3.81	1.00		
13. I use reference materials (e.g. a dictionary) to help me understand what I read.	Pre-test	3.22	1.08	-.105	.917
	Post-test	3.25	1.09		
18. I paraphrase (restate ideas in my own words) to better understand what I read.	Pre-test	3.59	1.24	-.209	.836
	Post-test	3.66	1.20		
22. I go back and forth in the text to find relationships among ideas in it.	Pre-test	3.51	1.22	.000	1.000
	Post-test	3.51	1.22		
26. I ask myself questions I like to have answered in the text.	Pre-test	3.30	1.25	-.378	.709
	Post-test	3.42	1.23		
29. When reading, I translate from English into my native language.	Pre-test	3.88	.80	.176	.861
	Post-test	3.85	.81		
30. When reading, I think about information in both English and my mother tongue.	Pre-test	2.51	.70	-.420	.678
	Post-test	2.59	.79		
Overall Mean	Pre-test	3.34			
	Post-test	3.36			
N= 27					

M, mean; SD, standard deviation

As can be seen in Table 7, students reported the medium use of Support Reading Strategies with the overall mean of pre-test (M= 3.34) and post-test (M= 3.36). It was observed that the students sometimes used strategies under SUP scale. Strategy 29 (When reading, I translate from English into my native language) was recorded to be the highest strategy use (pre-test M= 3.88, post-test M= 3.85) under Support Reading Strategies subscale. The students use this strategy to translate from English into Turkish for a better understanding of a text. The students reported that they take notes and paraphrase or restate their ideas in their own words to better understand what they read at a high level of strategy use (Strategy 1, pre-test M= 3.62, post-test M= 3.62; Strategy 18, pre-test M= 3.59, post-test M= 3.66). They also indicated high use for underlining or circling information in the text to help them remember it (Strategy 10, pre-test M= 3.85,

post-test $M= 3.81$); and going back and forth in the text to find relationships among ideas in it (Strategy 22, pre-test $M= 3.51$, post-test $M= 3.51$).

They reported lower medium use of Strategies 5 (pre-test $M=2.51$, post-test $M= 2.51$), and 30 (pre-test $M= 2.51$, post-test $M= 2.59$) under SUP subscale which means they do not usually or always read aloud to help them to understand what they read when text becomes difficult, and think about information in both English and their mother tongue when reading. Both strategies were also the least frequently used strategies among all the 30 strategies. Considering Mokhtari & Sheorey's rating scale, the items mentioned above were used at medium level. They also stated they use reference materials to help them understand what they read at medium level (Strategy 13, pre-test $M= 3.22$, post-test $M= 3.25$). Overall, it can be said that the students were not very skillful at supporting their reading difficulties. As the p values of all the items were bigger than 0.05, there were no significant differences between their current level and after training level regarding Support Reading Strategies use (see Table 7).

Table 8 below presents the results of Problem Solving Strategies. The students reported the highest use of strategies under Problem Solving Strategies subscale with the overall mean of pre-test ($M= 3.87$) and post-test ($M= 3.90$). They indicated high use for paying closer attention when the text becomes more difficult (Strategy 14, pre-test $M= 4.37$, post-test $M= 4.37$); visualizing information to help remember what they read (Strategy 19, pre-test $M= 4.22$, post-test $M= 4.29$); and adjusting their speed according to what they are reading (Strategy 11, pre-test $M= 4.14$, post-test $M= 4.07$).

Table 8. Problem Solving Strategies Pre-test and Post-test Results.

Problem Solving Strategies	Test	M	SD	T	Sig.
7. I read slowly and carefully to make sure I understand what I read.	Pre-test	3.70	1.20	.000	1.000
	Post-test	3.70	1.20		
9. I try to get back on track when I lose concentration.	Pre-test	3.33	1.24	.000	1.000
	Post-test	3.33	1.24		
11. I adjust my reading speed according to what I am reading.	Pre-test	4.14	1.09	.319	.752
	Post-test	4.07	1.17		
14. When text becomes difficult, I pay closer attention to what I am reading.	Pre-test	4.37	.92	.000	1.000
	Post-test	4.37	.92		
16. I stop from time to time and think about what I am reading.	Pre-test	3.40	1.24	-.263	.795
	Post-test	3.48	1.22		
19. I try to picture or visualise information to help remember what I read.	Pre-test	4.22	1.01	-.267	.791
	Post-test	4.29	.99		
25. When text becomes difficult, I re-read it to increase my understanding.	Pre-test	3.81	1.00	-.493	.626
	Post-test	3.96	.97		
28. When I read, I guess the meaning of unknown words or phrases.	Pre-test	3.96	.89	-.290	.774
	Post-test	4.03	.80		
Overall Mean	Pre-test	3.87			
	Post-test	3.90			
N= 27					

M, mean; SD, standard deviation

As can be seen from the data in Table 8, the students also disclosed that they guess the meaning of unknown words or phrases (Strategy 28, pre-test M= 3.96, post-test M= 4.03), re-read text when it becomes difficult (Strategy 25, pre-test M= 3.81, post-test M= 3.96), and read slowly and carefully to make sure they understand what they read (Strategy 7, pre-test M= 3.70, post-test M= 3.70) at high use.

As can be seen in Table 8, students reported medium use of getting back on track when they lose concentration (Strategy 9, pre-test M= 3.33, post-test M= 3.33), and stopping from time to time and to think about what they were reading (Strategy 16, pre-test M= 3.40, post-test M= 3.48). Since the Strategies 7, 11, 14, 19, 25 under PROB subscale were reported at high use by the participants, it can be said that they do not have many problems with solving reading difficulties (Magogwe, 2013). As the p

values of all the items were bigger than 0.05, there were no significant differences between their current levels and after training level of using Problem Solving Strategies (see Table 8).

Among the 30 strategies of SORS, as can be seen in Table 8, that the students most frequently used PROB 14 (pre-test $M=4.37$, post-test $M=4.37$) which means that they mostly pay closer attention to what they are reading, only when the text becomes more difficult. It is clear from the Tables 4, 5, and 6 above that the p values of all the 30 items were bigger than 0.05 regarding pre-test and post-test, so there were no significant differences between the participants' current level and after training level. However, there are 18 strategies in pre-test, and 19 strategies in post-test with means above 3.5, and no strategies with means below 2.5, which means that all the participants are aware of metacognitive reading strategies at medium or high use.

4.2.2. Findings from the Survey of Self-Evaluation Questionnaire

As Oxford (1990) stated, "Learners' own comments about their strategy use are part of the training itself" (p. 208). This instrument (The Survey of Self-Evaluation Questionnaire) by Oxford (1990), aimed to enable students to evaluate their own improvement on learning. However, considering the purpose of this research, merely the reading part of the survey was administered to the participants at the end of the strategy training program. The questionnaire consisted of five items. Among them, the first two items aimed to evaluate the students' understanding of a typical reading passage in a magazine or newspaper in English, a typical classroom passage. Items 2 and 3 tried to elicit the students' self-evaluation of their improvement on reading comprehension, and the last item was asked the students to rate themselves on the basis of items above. The data collected from the Self-Evaluation Questionnaire were descriptively analyzed, and represented in the following tables:

Table 9. How much do you understand of a typical reading passage in a magazine or newspaper in the new language?

Self-Evaluation Questionnaire Statements	Frequency	Percent
Less than half	6	22.2
More than half	19	70.4
All of it	2	7.4
Total	27	100.0

As can be seen in Table 9, all the participants responded to the item about how much they understand of a typical reading passage in a magazine or newspaper in the new language. Continuous scales as less than half, more than half, and all of it were used to measure the item (Creswell, 20013). The frequency of participants' responses to the item was 19 out of 27 students which means that 70.4% of them understand more than half of a typical passage in a magazine or newspaper in English. On the other hand, 22.2% students; 6 out of 27 students, reported that they understand less than half of it. Interestingly, only 2 out of 27 participants (7%) claimed that they understand all of the reading passage. Table 9 indicates that the majority of the participants understand more than half of the text they read for enjoyment.

Table 10. How much do you understand of a typical classroom reading passage?

Self-Evaluation Questionnaire Statements	Frequency	Percent
Less than half	1	3.7
More than half	26	96.3
Total	27	100.0

Table 10 indicates that a high number of participants (%96.3), 26 out of 27, understand more than half of a typical classroom reading passage. Only one student with %3.7 understands less than half of it. However, none of the participants understand all of a typical classroom reading passage. It was observed that the participants consciously use the strategies they practiced for eight weeks to understand the texts in English.

Table 11. Has your reading comprehension improved since last month?

Self-Evaluation Questionnaire Statements	Frequency	Percent
Yes	26	96.3
No	1	3.7
Total	27	100.0

Categorical scales yes/no were used to measure the item (Creswell, 2013). As can be seen from Table 11, all the participants responded to the item, and all but one of them with 96.3% claimed their reading comprehension have improved since the previous month. Interestingly, 1 out of 27 participants reported his reading comprehension had not improved.

Table 12. Are you generally able to guess the meaning of what you read?

Self-Evaluation Questionnaire Statements	Frequency	Percent
Yes	26	96.3
No	1	3.7
Total	27	100.0

It can be seen in Table 12 that the majority of the students with %96.3 (26 out of 27 students) believe they are generally able to guess the meaning of what they read. On the other hand, among the 27 students, one claimed that he generally is not able to guess the meaning of what he reads.

In Tables 11 and 12, all except two participants, reported that their reading comprehension have improved, and they are able to guess the meaning of what they read (96.3%) which means that they are able to employ various strategies when they are on task.

Table 13. Participants' self-rates on reading based on the questions above.

Self-Evaluation Questionnaire Statements	Frequency	Percent
Doing just fine	7	25.9
Not too bad	20	74.1
Total	27	100.0

As Table 13 presents, 74.1% participants; 20 out of 27 participants reported that they are not too bad, and that they do not worry about reading. However, the rest of the participants (7 out of 27) with 25.9% rated themselves as they are doing just fine, and they are about where they should be. None of the participants claimed they have serious problems with reading.

The responses given to the item in Table 13 show that almost three-fourths of the participants are slightly confident about their capability on reading comprehension while just over one quarter of them think that they are where they should be. However, none of the participants believe they have serious problems with reading comprehension, which means that they think they are able to cope well with the issue.

4.3. Qualitative Data Findings and Discussion

This section presents the findings gathered through qualitative method: follow-up semi-structured interviews, learner and researcher's diaries, and a Think-aloud Protocol.

4.3.1. Findings from Follow-up Semi-structured Interviews

As mentioned previously, follow-up semi-structured interviews were conducted with the students twice: once in the first period and once in the second period of the study. The researcher gave her interviewees the opportunity to warm up to the interview and to feel comfortable when responding to her questions. Recording interviews provided an important opportunity to focus on interaction with her interviewees rather than being distracted by trying to take notes. The researcher sought to learn the participants' personal opinions on reading and the strategy training program that they were exposed to. The findings are presented in two sections: Findings from the first

period follow-up semi-structured interviews (4.3.1.1.) and Findings from the second period follow-up semi-structured interviews (4.3.1.2.).

4.3.1.1. Findings from the First Period Follow-up Semi-Structured Interviews

Follow-up semi-structured interviews were administered to four randomly selected students at the end of the first four-week training program (December 23, 2015). The interviews were conducted and recorded in Turkish, and consisted of 5 questions for the first implementation (Appendix 1). The interviewees were invited one by one to the researcher's office that was in the same building as classrooms. All data from the interviews were transcribed and translated into English.

Firstly, the researcher aimed to find out whether the students were interested in reading or not, and asked for an explanation for the reasons. All but one, the interviewees claimed that they enjoyed reading for various reasons. P7G19 explained his reasons for not liking reading in the following words:

I don't like reading. The reason might be the lack of motivation. The teachers did not encourage us when we were at high school. They used to administer us to read boring books.

Although P7G19 seemed to be eager for learning and was courteous to his teachers, he stated that he is unwilling to read for pleasure. Another student, P9GL8, said she likes reading very much, and interestingly continued:

... because I abstract myself from the real word when I read a novel. I put myself in the position of the protagonist in the story, and I feel myself free.

It was observed from the interviews that the students mostly enjoy reading. The second interview question was about the type of the materials they read in their mother tongue. They stated that they enjoyed reading materials such as novels, poetry books, newspapers, and news on the Internet. P7G19 who did not like reading said he only read texts in the course books because he had to. One of the interviewees seemed to be the most skillful reader. He explained:

I mostly read documents about politics. I used to read novels when I was at high school. I usually read idea articles in newspapers. I am not interested in magazines. I am currently reading 'Global depression' a book by Ahmet Davutoglu that is about the future of Turkey. (P3C20)

The same interviewee significantly responded to the third interview question that was about what reading strategies they had previously used while reading. P3C20 seemed to be a good reader as indicated in the following response to the third question:

I used to read underlining important information with three different coloured pens; the important one with red, the one about idea with green, and the other with blue pen. Afterwards, I reread the underlined parts to elaborate the important ones.

All the interviewees were observed to use some reading strategies before they were exposed to the strategy training program for this study. The interviewees were from Social Sciences, and they might have learned and practiced those some strategies at preparatory schools, which they attended to prepare for the University Entrance Exam (UEE). Another student, P5Z12 said:

I had to feel comfortable when I was reading, if not, I could not concentrate on the material, and I used to reread many times. I used to try to determine the content of the text from the heading.

Fourth, they were asked to explain their opinions on a four-week strategy training program. Additionally, they were asked if they used any metacognitive reading strategies when they read academic materials in English. As it was the end of the first period of the strategy training program, it was observed that all the interviewees were aware of the reading strategies such as skimming, scanning, guessing the meaning of the unknown words from the context, and using clues to understand what they read. P3C20 said:

Now, I use the strategies you taught us. It especially works for the reading comprehension tests. I can answer the questions related to the text by skimming and scanning it. Yes, I think of my thinking while I

am reading. First, I try to consider writer's idea, and then, match my idea with his or her idea.

They reported that it was the first time they were trained to use metacognitive reading strategies for the texts written in English. However, they were previously trained to use the strategies in their mother tongue. Additionally, P5Z12 claimed she used all the strategies they instructed in four weeks:

I try to guess the content from the heading, and use pictures in the text if there are some. We learned skimming and scanning, but I usually read in detail, and take notes. I deal with grammar and unknown words too much.

The fifth question asked the interviewees to explain their perceptions of a 'good reader.' P7G19 defined a good reader as one who has the high-speed of reading, and one who is able to utilize the key words to understand a sentence without having to completely read it. P3C20 also said:

A good reader should be unbiased toward the writer, and not believe whatever he or she says. A good reader should seek the case, and retain the important information in his or her mind.

The researcher's aim was to give a brief description of 'good reader' in the beginning of the second session, and she wanted to learn participants' current perceptions about the concept. The participants made sensible explanations of the qualities of a 'good reader'. P5Z12 explained her perception of a 'good reader' as follows:

A good reader doesn't read just to read, and will make the right choice to read. A good reader should read to gain new knowledge, without needing to pause while reading.

4.3.1.2. Findings from the Second Period Follow-up Semi-structured Interviews

The interviews containing 6 questions (see Appendix 1) which were implemented at the end of the strategy training program aimed to find out the answer to

the second research question. Through these follow-up semi-structured interviews, the researcher sought to explore if the participants increased the number of the reading strategies that they use as a result of involvement in cognitive and metacognitive reading strategy training in English classes. The researcher focused on the participants' strategy use, so she coded the interview questions (see Figure 4. below).

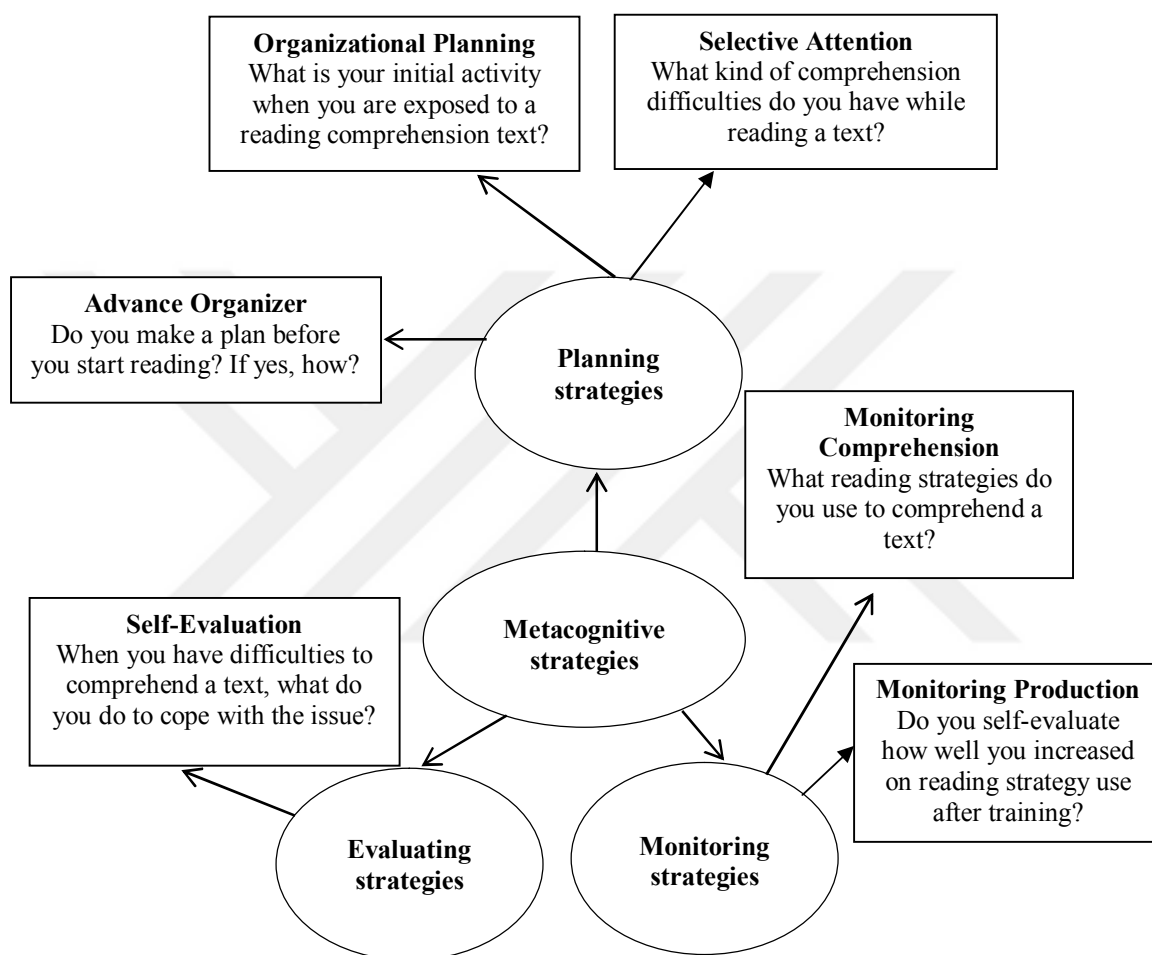


Figure 4. Classified Metacognitive Strategies for Interview questions

Source: original.

The participants were interviewed one by one in the researcher's office (March 21, 2016). The first question was about what their initial activity was when they were exposed to a reading comprehension text. According to the interviewees' responses, it became clear that they were aware of what to do to cope with a reading comprehension text, and well-planned which means that the students can think about how they are going to approach and carry out the task (Chamot et al. 1999). Although the

interviewees were randomly selected, they skillfully responded to the questions. They explained their opinions as follows:

Firstly, I pay attention to the main heading of the text, and then match the heading with the visual if there is one, to be aware of what the text is about. In case of unknown words in the heading, I guess from the visuals. If there are not any visuals, I try to find out the type of the text asking such questions; where is it from? For whom is it written? So, I try to understand what the text is about. (P2EF).

I scan the text looking at the visuals and numbers, and then, identify the words with capital letters and written in bold, italic features, if there are some. It really works. (P2YS).

Firstly, I look at the title and skim the whole text. I underline the words starting with capital letters, and the sentences written in bold, coloured and italic styles. I also underline the numbers. (P2DR).

I look at the title of the text to consider what the text is about, and clarify my idea by the help of the visuals if there are some. (P2LF).

Analyzing their responses, it became clear that P2EF, P2YS, and P2LF used the strategy GLOB 15 for organizational planning which means they mostly used visuals when they started reading a comprehension text. P2DR and P2YS also reported the use of strategy GLOB 20 which means they used typographical features. From the data above, P2EF can be categorized as a good reader as she used the most of the strategies such as GLOB 3 which means she can make use of her background knowledge, GLOB 24 that states for the content knowledge, SUP 26 which stands for asking herself questions to clarify her comprehension about the text, and PROB 28 which means that she can guess what something might mean (see Appendix 3). All the interviewees reported using a good number of strategies.

Secondly, they were asked if they made a plan before they started reading, and if so, how? This question aimed to ascertain whether they were advanced organizer or not. They said:

Yes, I make a plan. First, I try to understand the content of the written text. Then, I skim the unknown words, and try to guess the meaning from the context or previous and following sentences with the idea that sentences have relationship with each other. I look them up in the dictionary as the last option. (P2EF).

Yes, I make a plan. If there are some questions related to the text in hand, I first look over these questions, and then start to read the text. (P2YS).

Yes, I make a plan. I usually start reading with the first and the second paragraph of a text, of course, I firstly look at the title. Then, I relate the content to my personal experiences. If the topic is familiar to me, I try to create an idea in my mind. (P2DR).

Yes, I make a plan. After getting an overall idea about the text, I read the questions, and turn back to the text. If there aren't any questions and it is a story, I put myself in position of the protagonist, and share his or her feelings, so it's retentive and no need to reread. (P2LF).

As can be understood from the verbal data above, randomly selected interviewees, 4 out of 27 participants, might be labelled as proficient readers. For the second time, P2EF used the most strategies for advanced organization, and she indicated the use of strategies GLOB 1 which means identifying the purpose of reader in completing a task, SUB 13 that states for using resources to help the reader, SUP 22 which means she can manage her process by going back and forth in the text to find relationships among the ideas, and as she reported for the previous interview question, PROB 28 which means she can guess what something might mean. All the interviewees reported that they made a plan, but P2YS interestingly said that he first looked over the questions related to the text, if there were some (GLOB 17). P2DR dramatically declared the use of background knowledge, personal experiences, and activating her schema (GLOB 3).

Third, the interviewees were asked to identify the types of comprehension difficulties they had while reading a text. The following quotations taken from the

students interviews reflect the areas of difficulties that they experience when comprehending texts written in English:

I mostly have difficulties with the grammar of the written text, in addition, sometimes unknown words make it difficult to comprehend. (P2EF).

I mostly have difficulties with the unknown words. I don't have many difficulties with the grammar. I try to consider the grammar from the context. (P2YS).

I mostly have difficulties with unknown words. Sometimes it is a barrier for me to understand the text. I don't have many difficulties with the grammar. (P2DR).

I have difficulties with the unknown words and the grammar while reading a text written in English. (P2LF).

All the interviewees reported their prior comprehension difficulties stemmed from unknown words. As Spiro (2013) claimed “many learners and linguists agree that vocabulary lies at the heart of learning a language” (p.81). During the strategy training program, the researcher, only lightly instructed the students about vocabulary learning. However, the researcher noticed that the students did not make much effort to foster the new vocabularies. On the other hand, two of the interviewees explained they had comprehension difficulties with grammar. One of the students (P2YS) said he did not have many difficulties with grammar,

Fourth, the interviewees were asked what strategies they used to comprehend a text as monitoring their comprehension abilities. They said:

Firstly, I skim the text, and make use of visuals to get an overall idea. Then, I read the questions. You taught us the top-down strategy. If the questions are about the general idea of the text, I just scan it for the sake of top-down strategy. On the other hand, if the questions require reading in detail, I use the bottom-up strategy. (P2EF).

If it is a reading comprehension text, and there are questions related to the texts, I firstly read the questions and make sure I understand what they are asking me. If the questions about the overall idea, I use the top-down strategy, and I find out the key words. If they are detailed questions, I use bottom-up strategies. For true-false questions, I read in detail to try to find out the exact sentence in the text, and then I confirm or not. (P2DR).

I pay attention to the structure of the text to consider the time. I use top-down strategy to get an overall idea about the text. If there are comprehension questions, I read the first paragraph for the first question, because the answer is usually there. For the last question, I search a little bit above the end of the text. I read in detail for the true-false, numbers, places, and names required questions. (P2LF).

Three students (P2EF, P2DR, and P2LF) explicitly claimed that they interchangeably used the top-down and bottom-up strategies to comprehend a text. P2EF also reported the use of some cognitive strategies such as skimming, scanning, and making use of visuals to get an overall idea. P2YS said he used context clues to help him better understand what he was reading (GLOB 17), and background knowledge as reflected in the following:

I try to understand what I read, and look for the clues in the text such as title and visuals. I use my background knowledge about the content to interpret the text. If there are true-false questions for the text I read in detail. For the questions with numbers, I find the related sentence in the text. (P2YS).

For the fifth question, to monitor their production, the interviewees were asked what they did to cope with the issue when they had difficulties to comprehend a text. The question aimed to make the students revise the strategies they were taught. They responded to the question as in the following:

If I have difficulties in understanding a part of the text, I read the related question if there is one. It sometimes works. I also re-read and slow down my reading speed. (SPEF).

I reread the text, and change my speed while reading. I pay close attention to the punctuation of the sentences. If I have difficulties with the words, I look at the functions of them, and if I cannot guess the meaning, I look them up in the dictionary. (P2YS).

I try to activate my schema by acquiring an overall idea from the paragraph I am having difficulties with, and make connections with my own experiences. I mostly have difficulties with the unknown words, if so, I identify the function of the word, and guess the meaning from the context. I also look at the previous and following sentences to guess the meaning of words. It really works. (P2DR).

I go to a silent place and read aloud the text. If I still have difficulties, I reread the text while underlining the some of the information to help me. I try to guess any unknown words from their functions and neighbouring ones. (P2LF).

As seen from the verbal data above, P2EF and P2YS reported that when they had difficulties to comprehend a text, they reread and changed their reading speed which is related to strategies PROB 11 which states the self-management of the reader for adjusting his or her reading speed according to what they are reading, and PROB 25 which means that if the text became difficult the strategy they used to increase their understanding was rereading the text. Another interviewee, P2LF, also said he reread the text (PROB 25) underlining some information in it to make them remember it (SUP 10), and read aloud it (SUP 5). P2DR interestingly reported activating her schema to make connections with her background knowledge ((GLOB 3). All the interviewees explained how they coped with the unknown words in a convenient way such as guessing the meaning from neighbouring words and sentences or looking them up in a dictionary PROB 28 and SUP 13).

The last interview question was asked to the students to self-evaluate themselves regarding how well they increased their reading strategy use after strategy training. That was the key to the second research question as well. They responded to the question as follows:

I did not have any strategy training when I was in high school, and I didn't have any idea about it. In the past, I could not understand the text if there were unknown words. But now, I can use various types of strategies to solve the problems. I can visualise or use visuals, my background knowledge, and keywords in the text, and activate my schema. (P2EF).

My reading speed increased. I started to understand the text in a shorter time and much more easily. Now, I am good at answering detailed questions such as 'fill in the blanks' and 'true-false' ones. (P2YS).

After strategy training, I learned to use the visuals, and some other clues in the text to comprehend it. Before the training, I didn't use to pay attention to the clues such as visuals, numbers, and typeface of the words, but now, I am aware of them. I can use various types of reading strategies. (P2DR).

I am aware of the reading strategies now. I have learned how to guess the unknown words. The most useful reading strategy for me is to make use of the visuals and to visualise in our mind. I have also learned to brainstorm, and activating my schema. (P2LF).

All the interviewees reported that they increased the number of strategies they used through the involvement in cognitive and metacognitive reading strategy training in English classes. They said they are able to use many strategies, and more importantly, they assume themselves as high- proficiency readers. Furthermore, it became clear that the interviewees were aware of their current metacognitive process as P2EF said she could use imaginary (PROB 19), visuals (GLOB 15), keywords (GLOB 20), and also activates her schema and background knowledge (GLOB 3).

4.3.2. Findings from Think-aloud Protocol

The aim of Think-aloud Protocol was to gather verbal data from the participants so as to explore whether the instruction helped achieve the goal of the study or not. Anderson (1991) pointed out, "A verbal report or think aloud protocol is produced when a reader verbalizes his or her thought processes while completing a given task" (as cited

in Yaylı, 2010, p.236). From this point of view, in the fourth week of the strategy training program the participants, having reflected their cognitive processes, said whatever came to their mind as responding to the questions that were related to the text on hand.

The text was about Galileo Galilei-the father of modern science by Soars & Soars (2011). First, the participants were asked to read the text silently and answer the comprehension questions on their own, and then, they read loud and verbalized their cognitive processes as responding to the instructor's questions. The process was conducted as a whole class activity. The researcher asked them if the picture at the bottom was a reminder to them about his inventions. They answered that they recognized him from the picture at the right top of the page and remembered his discoveries from the picture at the left bottom of the page. Although they were slightly instructed about using visuals with the skimming strategy until then, the participants were successful at the use of the strategy. The next question the researcher asked was their initial thought about the text given and the students explained:

P4FR: *umm... there were some comprehension questions to be answered, and so I firstly read the questions. Then, I read the text.*

P4RD: *I remember him from physics classes at secondary school, and though that the text was about his life and inventions.*

P4ZN: *mm... I skim and scan the text, and realized from sub-headings that it was about Galileo's life and inventions.*

The researcher aimed to implicitly activate the participants' background knowledge, and make them use visuals by choosing such a text. From the verbal data above, it is obvious that the students were aware of using these strategies for the initial phase. Most of them said they firstly skimmed and scanned the text to comprehend, but only P4FR claimed that he read the questions as the first activity. As P4RD, some students used their background knowledge.

The participants were also asked what kind of problems they encountered while reading the text, and how they could cope with those problems. The students had the opportunity to monitor their cognitive process, and interact with each other using think-aloud strategy. They reported the problems they encountered as in the following:

P4LP: *Luckily, I didn't have problems with grammar. I know Galileo was a scientist from the history, and the tense is in simple past. It is easy, but I had difficulties with unknown words. I couldn't guess the meaning of 'prison'.*

P4ER: *mm... I had difficulties with unknown words, even the word 'prison', but the film I watched last week, 'Prison Break', made me guess the meaning of the word.*

P4GL: *I didn't have difficulty with grammar, umm... I know simple past tense well, but I had problems with some unknown words. For example, I couldn't guess the meaning of 'blind'. Also, there was a word in the comprehension questions matching 'blind'. I understood they were about disabilities from the neighbouring words, but couldn't guess what disability each, so I needed to look them up the dictionary.*

P4FR: *I didn't know the meaning of 'blind' before, but I remembered from the history of astronomy that Galilei was blind in his last years, so I guessed the meaning. When you [instructor] taught us some strategies such as pre-reading, while-reading we learned to solve such problems*

From thinking loud data above, it can be said that the participants were able to use various strategies, and the interaction among them gave them the opportunity to be aware of their strengths and weaknesses. When the participants were on task, two of them said:

P4HM: *mm... I could answer the question of where Galilei was from by scanning the names of the places.*

P4BH: *The question for his workplace, I searched the name of the universities in the text.*

As the participants were monitoring their cognitive process, they verbalized that they benefited the words with capital letters, numbers, proper nouns, and the names of the places to answer reading comprehension questions related to the text. Overall, the

Think-aloud strategy enriched the verbal data collected in the natural setting for the study. Regarding second research question, having analyzed the data, the researcher considered that the participants would increase the number of the reading strategies they use in the following weeks.

4.3.3. Findings from the Learner Diaries

The participants' experiences and interpretations of involvement in cognitive and metacognitive reading strategy use were recorded during the second period of the instruction. Learners' diaries are forms of self-report that make students record their reflections on learning process (Oxford, 1990). Data gathered from the learners' diaries were in Turkish as it was believed they could better express their experiences and feelings in their native language. However, the data were translated into English at the analysis stage by the researcher. The students first kept the diaries for their language strategy use in their process of understanding the short stories they recently read (February 29, 2016). The researcher also gave some prompts to the students such as; What did you do before reading, while reading, and after reading? What kind of problems did you confront while reading, and how did you solve them? Some of the prompts were as follows:

P5ZNK: First, I scan the story to get an idea of the story. Fortunately, there were some pictures which made me easily understand the story. I reread and underlined the sentences that I could not understand. I had some difficulties with the grammar while reading the story, but related comprehension questions and visuals helped me to understand the story. As the final activity, I wrote the review of the story on the outlined sheet you gave us.

P5ZFR: I got ready my pen and dictionary before reading, and then scanned all pages of the story. I wrote the meaning of the unknown words in my language. I mostly had difficulties with unknown words to understand the story, and I used a dictionary to solve the problem. I translated into my language the sentences I didn't understand. After all, I wrote the review of the story on the outlined paper.

P5ARS: *Following your instruction, I scanned the story, and then underlined the unknown words. I put myself in protagonist shoes, and created imaginaries in my mind while reading the story. I tried to guess the meaning of unknown words from the neighbouring ones. The visualizing strategy helped me to write the review of the story.*

As seen from the data above, the students kept in the diaries that they mostly used scanning for pre-reading strategy (GLOB 4). P5ZNK used visuals (GLOB 15) and comprehension questions (GLOB) to understand the story. She reread the sentences to solve the problem (PROB 25), and underlined the information to support her reading (SUP 10). P5ZFR and P5ARS started reading the story with scanning strategy (GLOB 4), and they reported that they difficulties with unknown words while reading the story. P5ZFR indicated the use of SUP 13 that refers to using a reference material, and SUP 29 which means translating from English into Turkish to support understanding of the story. Meanwhile, P5ZFR used a dictionary (SUP 13), but P5ARS guessed from the neighbouring words to solve her problems with unknown words (PROB 28). P5ARS also reported the use of the imaginary strategy (PROB 19) which means she was more skillful than the others on strategy use.

The following week (March 7, 2016), after practicing visualizing strategy and adding mental images strategy, some of the students recorded in their diaries the following:

P5DSN: *I liked these strategies. From now on, I will use them for all reading tasks. It was easier, faster, and more enjoyable than the other strategies for me to understand the text. I am sure I will not forget the images I created in my mind, so the related information in the text.*

P5PDR: *I could have an idea about the text using visuals before reading it. On the other hand, imaginary made me easily remember the whole text, because I made connections with the images in my mind and the text we read.*

P5SRK: *I think visualizing strategy works well for me to get an idea of the text before reading it. Also, I could use my background*

knowledge about tattoos, and it helped me to understand the text. Imaginary was helpful to recall the information in the text. I will always use this strategy when I read a text in English.

As Gagne & White (1978) asserted creating mental imaginary strategies helps to increase the retention of the information for learners. P5DSN claimed that creating mental imaginary strategies helped her to understand the information in the text. At data analysis stage, the researcher realized that all the participants were enjoyed visualizing (GLOB 15) and creating mental imaginary strategies (PROB 19). P5SRK showed the use of visuals to activate his schema (GLOB 3). P5PDR reported the connection between the images and the information in the text (GLOB 17). Regarding strategy GLOB 15 of using visuals, and strategy PROB 19 of visualizing, we may conclude all the participants became aware of the strategies.

In the third week of the second period, firstly, the data from the participants' metacognitive awareness on the self-monitoring process were elicited through an article from an international press. P5Z12 and P5DVL explained the strategies they used to understand the article in the following words:

P5Z12: I wonder how international press interprets a case in my country. In that case, the news is written in English, but it isn't difficult to understand the content. I used visuals in the news, and I also made use of my background knowledge to read the article in hand.

P5DVL: I was worried about the case. There was a lack of the information about the event in national press, and I wanted to get some more information about it. So the online article in 'The New York Times' helped me. Although there were a lot of unknown words, I guessed from the context, and used the visuals.

As can be understood from the verbal data above, being aware of the content made the participants understand the article. P5Z12 reported the importance of using visuals (GLOB 15), and background knowledge (GLOB 3). P5DVL claimed the use of visuals and guessing the unknown words from the context helped to comprehend the

text. Having guessed the unknown words, the recent article in hand encouraged the participants to read through international press (PROB 28).

In this session the participants were instructed about setting goals and objectives. Firstly, as mentioned in Chapter III, they were asked to write in the diaries: what their goals were being a student in a department that used English language as part of their syllabus, what type of written materials they expected to be exposed to in their professional life, and if they thought they would be a proficient reader. Secondly, the instructor asked the students to write in their diaries what their objectives were to practice the reading skill in the near future. Data from the participants' goals and objectives were analyzed and discussed. One of the participants from International Affairs department responded as in the following words:

P3C20: I will confront political texts after I graduated from the university, and I would like to be aware of both national and international issues. I would like to consider the cases globally. My goal is to be able to read books and watch films in English. My objectives are practicing the pronunciation of the words we learned this week, and foster the use of 'take' in phrases.

He explained his goals and objectives in a decisive way. Williams, Mercer, and Ryan (2015) explained that each individual had goals to achieve, but some goals had more significance than the others to be achieved. Considering Oxford's idea (1990) that goals were long-term aims, and objectives were short-term aims, P3C20 was planning to be a proficient second language user in long-term, and also had the purpose of solving his some linguistic problems in short-term.

Another student from the philosophy department reported that she expected to confront philosophical texts in her professional life, and that she was sure about her capability to cope with the issue using her background knowledge. She continued:

P5EBR: ... mmm, I will study vocabulary to improve my reading skill, because I have difficulties with unknown words. My goal is to be a good reader. As you know, my department needs to be a good reader in English. Most of the sources about philosophy are in English, and I would like to be skilled on reading those materials.

Having analyzed the data from the diaries, the researcher realized that the participants' goals were to become skillful readers and speakers in English. Since all but one of the participants were compulsory students in English, and they would confront materials in English in their educational life at the university and their professional life in the future, they aimed to be good second language speakers and readers. They were also aware of their weaknesses, and determined the objectives to study vocabulary and grammar.

4.3.4. Findings from the Researcher's Diary

The researcher's diary was kept to record her in-class observations, experiences, feelings, and perceptions of the participants' attitudes toward the implementation of strategy training on weekly basis (Creswell, 2014). As being the instructor of the sampling group, the researcher took part in the research, and that made her to able to shift her emphasis during the strategy program according to data she gathered from her observations (McDonough, Shaw, & Masuhara, 2013). Here is her impression of Week 1 implementation:

My adult learners claimed they were aware of some reading strategies. If so, eight-week training will be enough for the activity. They might be instructed some strategies at preparatory schools for University Entrance Exam (UEE) they took to study at universities. I wonder whether they are capable of integrating the strategies they already know in their native language into English. They were happy when I informed them about the strategy training they are going to be exposed. They are eager to be trained in using the context clues to understand a text written in English (November 30, 2015).

The researcher informed the participants about the strategy training program, and tried to motivate them to make use of the cognitive and metacognitive reading strategies. The researcher determined the strategies to be presented and practiced before Week 2 session started. As previously mentioned, Oxford's eight-step model was followed in the study (1990). She wrote in her diary after the session:

I am on the right way. As Oxford advised, no need to instruct students with many strategies in one session. This week they learned

to use 'skimming' and 'scanning' strategies as practicing a text from their course book. Luckily, the text was convenient to practice the strategies I determined to instruct this week. (December 7, 2015)

The following week, the participants practiced the strategies they learned the previous week. Then, they prepared and use of ideas map as a follow-up activity. The participants' prior content knowledge related to the text was activated, and this increased their comprehension (Palincsar & Brown, 1984). The researcher, implicitly made the participants use their background knowledge, and explicitly asked them to take advantage of their world knowledge (Nunan, 1999). The researcher impression on the session was as follows:

I am so grateful that the students enjoyed themselves during the lesson. They seemed to me like kindergarten students when they were creating ideas maps. They liked using different colours for each bubble. They were good at integrating strategies with the task. The topic of the text interested them, and the video related to text was fascinating. (December 14, 2015)

For the next session, the researcher selected a text for the strategy she determined to present and practice. She was sure that the students would be good at practicing think-aloud protocol. First, the researcher motivated her students to make a contribution to the sessions drawing on the arguments raised by Dörnyei (1998). Dörnyei asserted, "without sufficient motivation, even individuals with the most remarkable abilities cannot accomplish long-term goals, and neither are appropriate curricula and good teaching enough on their own to ensure student achievement" (1998, p. 117). Meanwhile, the researcher created a non-threatening environment to make the students participate in the study. Here are her observations:

I did not expect the students to be eager so much to engage in the task. I could observe their weaknesses and strengths through the task. P4GL thought loud in a successful way, and she used the appropriate strategies, also, made the other participants aware of solving the problems. Although I instructed them about how to cope with the unknown words, they need an intensive training on

vocabulary learning. It will be better to cooperate with their Main Course instructor about vocabulary teaching. (December 21, 2015)

The fifth week, following Oxford's (1990) advice about the preparation of materials and activities, the researcher started with distributing the diaries she bought for the learners. The students had the opportunity to evaluate their strategy use as recording them in the diaries. However, during that process, they did not get many directions from the instructor (Chamot et al., 1999). As the students had just come back from a long semester break, having such an amazing activity entertained them. The researcher also chose an interesting material to practice for the sixth-week session strategy 'top-down' and 'bottom-up' processes. At the end of the session she recorded her observations:

Receiving colourful small notebooks, different designs for male and female students, made them feel happy. Asking them to write their names on the diaries at the beginning of the activity was a good idea. So the participants realized that the diaries were their belongings, and tried to do their best when monitoring their comprehension of the last short story they read. They found the topic of the text we practiced interesting. They are young adults, and interested in tattoos. However, they mostly used 'bottom-up' strategy to respond the comprehension questions. I think, I need to have more practice for 'top-down' strategy use. Having a tattoo on her wrist made P2DR fell confident, and she made more effort than the others when they were on task. (February 29, 2016)

Following Oxford's 'eight-step model' (1990), the participants were explicitly informed about the strategy training program. The students learned the way of transitioning from one strategy to another when they were on a task (Spring, 1985; Brown et al. 1982). The researcher used a text to instruct the target strategy in each session. To make them aware of visualizing strategy, the instructor used a text with no images. Her observations of the sixth week were as follows:

They are good at using visuals, also enjoyed creating mental images to retention of the text. The text I chose to model was a bit confusing. It would be better if I chose a different text. In the beginning, they

were confused, but the text to practice was proper for the strategy. When they were on task, I felt as an art teacher. The students made fun of their drawings. I think this strategy will support their reading comprehension. (March 7, 2016)

The week before the last week of the strategy training program, the researcher asked the participants to reflect their comments on strategy use when they were on task. As Grenfell & Harris (1999) pointed out “if we can find out what good language learners do, then maybe we can tell the other learners in order to improve their chances (p. 46). The findings were analyzed and discussed in learners’ diaries section above. As Oxford (1990, p.208) argued in the ‘Step 7’ of her model: “Learners’ own comments about their strategy use are part of the learning itself”. Following Oxford’s model, the researcher made use of her observations to evaluate the students’ strategy use:

Having practiced the strategy using an up-to-date and authentic material worked well. Although there were many unknown words in the article from the daily newspaper ‘The New York Times’, they did not much struggle with the words. On the other hand, they make much effort when they deal with academic texts. If I use materials from daily life for reading activity, they will be more successful at strategy use, and that makes them feel confident about their reading skill. (March 14, 2016)

The last step in Oxford’s (1990) model is the revision of the strategies. The researcher revised the strategies using a text, and recorded her observations about how well the students were with the strategy use in her diary for the last time at the end of the session:

They were interested in the topic ‘tea’. They were good at using skimming, scanning, and using visuals strategies. They also tried to use their background knowledge, but the lack of world and cultural knowledge about different ways of drinking tea around the world led them to be confused. Luckily, there was some information about serving tea in Turkey. They need to improve their international cultural competence. (March 21, 2016)

The implementation of 'The Survey of Reading Strategies Questionnaire' (Mokhtari & Sheorey, 2002) as the last activity of the metacognitive strategy training program made the students revise all the strategies they were exposed to.



CHAPTER V

5. CONCLUSIONS

5.1. Introduction

This chapter presents the summary of the study, discussions and conclusions. Then it concludes with the limitations of the study and suggestions for further research.

5.2. Summary of the Study

The aim of this study was to explore the students' current situation regarding their use of reading strategies while they read texts written in English, and investigate to what extent cognitive and metacognitive strategy training increases the students' reading strategy use. The study was focused on two issues: the students' metacognitive awareness on current situation (1); the possibility of improving learners' cognitive and metacognitive strategy use (2). The study sought to address the following research questions:

1. What type of reading strategies do the preparatory class students use while reading a text written in English?

2. Is it possible to increase the number of the reading strategies that the learners use through involvement in cognitive and metacognitive reading strategy training in English classes?

This study concerns the triangulation of both quantitative and qualitative approach. Gorard & Taylor identified triangulation as to be a simple form of method combination (2004). Data were obtained from multiple sources at a two-period reading strategy instruction time. The first period was carried out during the last four weeks of the first semester in 2015-2016 academic year. The second period was completed during the first four weeks of the second semester in 2015-2016 academic year.

To find out the answers to two research questions regarding students a combination of quantitative and qualitative approaches were used in the data collection and data analysis process. The quantitative data management and analysis, drawn from two main sources (see Appendices 3 and 4), were performed using SPSS 20. The qualitative data collected from four primary sources were descriptively analyzed. In

order to achieve more precise estimates of follow-up semi-structured interviews, the procedure was replicated twice: once in the first period and once in the second period of the study. All the data were analyzed based on the strategy categorization by Oxford (1990) and O'Malley & Chamot (1990).

The participants of the study were a group of students studying in a preparatory class at Inonu University School of Foreign Languages in Malatya, Turkey. All of the students in the class were placed according to the results of a placement test that they took at the beginning of the first semester. The class consisted of 27 students with the age range between 18 and 22. Among 27 students, 14 of them were male and 13 of them female. The students' mother tongue was Turkish.

5.3. Conclusions

It is known that there has been a great deal of investigations on learning strategies in last three decades. Research in metacognitive and cognitive learning strategies recommends the transferring and the pairing of the two strategies to maximize or enhance learning (O'Malley & Chamot, 1990). The researcher of this study, having impressed by the researches in literature some of which were carried out by O'Malley & Chamot, (1990), Chamot et al. (1999), Nunan, (1999) and Oxford, (1990), sought to find answers to her research questions.

5.3.1. The First Research Question Discussion

The first research question in this study guided the researcher to determine the type of reading strategies the participants' used at their current level. The first implementation of SORS aimed to find the answer to the first research question. Mokhtari and Sheorey's (2002) interpretation was used to explain the overall average scores for the SORS as rating mean of 3.5-5.0 high; mean of 2.5-3.49 medium; and mean of 1.0-2.49 low strategy use.

Having analyzed the data from SOR to find out the answer to the first research question, it became clear that the students were able to plan and monitor their reading processes by using the such strategies; skimming and scanning the text, using the visuals and content clues, identifying their purposes, using background knowledge and typographical features, and predicting to comprehend a text with the overall mean of pre-test ($M= 3.57$) under GLOB subscale (13 items). The findings from PROB subscale

(8 items) with the overall mean of pre-test ($M= 3.87$) showed that the students were capable of coping with the difficulties during a task with the kind of strategies such as using mental imaginary, rereading, guessing the meaning of unknown words, and adjusting their reading speed to comprehend a text. The findings from SUP scale (9 items) with the overall mean of pre-test ($M= 3.34$) also indicated that the students could make contributions to their understanding by the strategies of; taking notes, underlining the information, using resources, and reading aloud.

Not unexpectedly, the students reported their strategy use at medium or high level. Garner & Alexander (1989) noted “younger and poorer readers, often rely on a single criterion for textual understanding” (p.145). From this point of view, as the students aged between 18 and 22, they have been experienced on their cognition. As Pearson (2008) noted that “today’s new knowledge is tomorrow’s background knowledge”, so the young adult learners of the present study were well of with respect to their life experience to make use of their world knowledge (as cited in Harvey & Goudvis, 2013, p. 437). Another possible explanation for this result might be that the participants were from the departments of Social Sciences at university and had taken instruction on some strategies during preparatory courses for the University Entrance Examination (UEE). Macaro (2006) asserts that high proficiency level learners tend to use a range of metacognitive strategies, so as to enhance their proficiency (cited in Ellis, 2015). However, it was also noticed at the initial phase of the study that the students were not proficient in using those strategies. This was observed during the informal conversations in the classroom.

5.3.2. The Second Research Question

The key research question of this study was the second one that aimed to investigate to what extent cognitive and metacognitive strategy training increases the students’ reading strategy use. The statistical findings from SORS indicated that there was no increase in strategy use associated with the strategy training program. That is, we observed that the items in the GLOB subscale were at high use with an overall post-test mean ($M= 3.62$). Similarly, the items in the SUP subscale were observed to be at medium use with an overall mean of ($M= 3.36$) in the post-test and the items in the PROB subscale were at high use with an overall post-test mean ($M= 3.90$). There were no significant differences between the findings elicited from the pre-test and the post-

test of the survey. Having compared the statistical findings from SORS and the verbal data from interviews, diaries, think-aloud protocols, and observations, a contradiction can be seen as the findings revealed no significant differences between findings gathered from the pre-test and post-test of the survey. This means no increase was observed in the number of the strategies that the students used after the training program. This finding is in line with the developer of SORS, Mokhtari and Sheorey's, (2002) argument that the instrument was considered "as only one source of information about students' reading abilities", and so the study concerned the triangulation of both quantitative and qualitative approach (p. 6). However, the verbal findings of the study showed that the training program helped to raise the students' metacognitive awareness on reading. More specifically, findings from the second period semi-structured interviews, think-aloud protocol, diaries and observations revealed that the students were able to manage their learning by using the metacognitive strategies to plan and monitor their comprehension process, to elaborate their prior knowledge, to solve the problems they encountered when they were on a task and evaluate how they completed a task (Chamot et al.1988).

On the other hand, comparing the statistical findings from Oxford's (1990) survey and the verbal data from all the sources, the similar results were observed about the participants' cognitive and metacognitive awareness which means they increased the number of the reading strategies used in English classes after being involved in cognitive and metacognitive reading strategy training. As Weinstein & Mayer (1983) explained 'good teaching' is making the students to be aware of the way to learn, remember, think and motivate themselves, and according to them, teachers should have the intention to teach the students what to learn and how to learn.

Moreover, having deeply analyzed the statistical findings of Oxford's survey, it is obvious that the students' understanding of English written text had improved since the previous month. All but one of the students could guess what they read. Findings gathered from the verbal data revealed that most of the participants were well planned which means that the students could think about how they would go to approach and carry out the task, and the advanced organizers, and were, therefore, able to make immediate decisions on how to start and what to do next when they were exposed to a reading comprehension text (Chamot et al. 1999). In a study Bayezit & Çubukçu (2015), investigated the students' awareness of strategy use when using Turkish and

English course books to teach Turkish and English as a second language. The findings of their research revealed that the students used metacognitive learning strategies in English course books more than they used in Turkish course books. However, they found that the students used cognitive learning strategies in Turkish course books more than in English course books. Hence, the texts in the course books provided more opportunities with the students than the texts in Turkish to use metacognitive reading strategies which enabled them to regulate their cognitive strategies use (Bayezit & Çubukçu, 2015). As previously mentioned in Chapter II, ‘opportunity’ is one of three variables depended on language learning (Rubin, 1975). . With respect to this point, the participants of the present study made use of all the English written materials to increase their strategy use following the researcher’s instruction.

For the reason that the students had difficulties to comprehend the texts written in English, they seemed eager for each strategy session to cope with the issue. The course book followed due to the course syllabus was almost appropriate for the strategies planned to instruct, but yet some texts from different sources made a contribution to the study. The students were eager to participate in the lesson whenever a new strategy was introduced. The students from all proficiency levels were allowed to take part in the lessons so that weaker students were able to indicate the problems they had encountered, and stronger ones could reveal what made them successful (Chamot, 1999). Interestingly, during the whole two-period of strategy training program, all the students attended the classes. They were bored of focusing on the structure and vocabulary of the text while reading. Then, the students considered the activity as a mental engagement after being given instruction. Marzano (1991) drew our attention to the learners’ mental processes to strategy training, and added that teaching learners to regulate their thinking could “transform the classroom into an arena of self-discovery and exploration for students” (p. 81).

After an eight-week strategy training program, they were capable of monitoring their comprehension and production competence. The participants could interpret what they read according to their personal experiences and background knowledge. The researcher followed O’Malley and Chamot’s (1990) recommendation of checking the students’ current strategy use to foster the previously taught strategies before instructing the new one. That was a warm-up activity, and they enjoyed learning a new strategy like “learning a new move in sports” (Crawford, 2005, p.9). As Nunan said (1999) the

students could integrate what they knew with the content of what they were reading in practice sessions. The most obvious finding to emerge from this study was that having explicit metacognitive reading strategy training, the students could apply different types of strategies to various kinds of texts, and “regulate and control the learning progress” Williams et al. (2015, p. 124). It means that they were consciously aware of their mental process when they were on a task, and could make a combination of metacognitive strategies with cognitive strategies to enhance their learning (Chamot et al., 1988). Additionally, the participants explained their need for strategy training in listening, speaking and writing skill as well. The results of this research support the assertion that metacognitive learning strategies were crucial in language learning within a combination. As noted by Chaudron, (1988), “It is difficult for classroom research to produce solid evidence of which specific learning strategies are the most fruitful ones to investigate” (p. 110).

5.4. Limitations of the Study

The first limitation of the study was related to the participants’ language proficiency levels. That is, the participants in this study were the students of a particular preparatory class and they were beginner level students. For this reason, the researcher mostly had to cope with the unknown words in the materials and this reduced the amount of strategy practice time. Secondly, the need to follow the obligatory syllabus designed by school administration caused time limitation. As Farrell (2001) explained the reading strategy instruction as “It Takes Time!”, the present study needed a longer period (p.631). The course materials that the classes had to follow as directed by their course syllabus was also another limitation of the study. Although the participants made use of these materials, it was observed that authentic supplementary materials such as online newspapers, emails, and tweets caught their attention better than the course materials alone.

5.5. Suggestions for Further Research

The researcher of this study has experienced how to increase students’ cognitive and metacognitive awareness on reading strategies. Further research needs to reveal the effects of such training on the students’ reading comprehension improvement. The links between vocabulary and reading strategies are also suggested to be further examined.

As noted by Farrell (2001), “it takes time”. A future study investigating metacognitive reading strategies should be conducted over a longer period of time. Although research in metacognitive and cognitive learning strategies recommends that transferring and pairing of the two strategies should be used in order to maximize or enhance learning, Chamot et al. (1987) assert that transferring between the two strategies is an issue which is yet to be resolved.



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7. APPENDICES

7.1. Appendix 1: Follow-up Semi-Structured Interview Questions

7.1.1. Appendix A: The First Period Interview Questions

- 1- Do you like reading? If yes or no, why?
- 2- What kind of materials do you read in your native language? What are you recently reading?
- 3- What reading strategies did you use when you were reading a written material before?
- 4- You have been trained to use some reading strategies up to now. What strategies do you use?
- 5- What characteristics should have a good reader?

7.1.2. Appendix B: The Second Period Interview Questions

- 1- What is your initial activity when you are exposed to a reading comprehension text?
- 2- Do you make a plan before you start reading? If yes, how?
- 3- What kind of comprehension difficulties do you have while reading a text?
- 4- What reading strategies do you use to comprehend a text?
- 5- When you have difficulties to comprehend a text, what do you do to cope with the issue?
- 6- Do you self-evaluate how well you increased on reading strategy use after training?

7.2. Appendix 2: Short Story Review Sheet



A Book Review by _____ (Student's Name) _____ RATE

Title: _____

Author: _____

Characters: Who are they? Did you like them? How did they make you feel?

Plot: What happens? Is it fun to read?

Your opinion: Did you like the book? What was your favourite part and why? Did you learn anything?

Recommend: Why or Why not?

7.3. Appendix 3: Reading Strategy Survey

SURVEY OF READING STRATEGIES

Kouider Mokhtari and Ravi Sheorey, 2002

The purpose of this survey is to collect information about the various strategies you use when you read **school-related academic materials in ENGLISH** (e.g., reading textbooks for homework or examinations; reading journal articles, etc.). Each statement is followed by five numbers, 1, 2, 3, 4, and 5, and each number means the following:

‘1’ means that ‘I **never or almost never** do this’.

‘2’ means that ‘I do this **only occasionally**’.

‘3’ means that ‘I **sometimes** do this’. (About **50%** of the time.) ‘4’ means that ‘I **usually** do this’.

‘5’ means that ‘I **always or almost always** do this’.

After reading each statement, **circle the number** (1, 2, 3, 4, or 5) which applies to you. Note that there are **no right or wrong responses** to any of the items on this survey.

Statement	Never		Always		
1. I have a purpose in mind when I read.	1	2	3	4	5
2. I take notes while reading to help me understand what I read.	1	2	3	4	5
3. I think about what I know to help me understand what I read.	1	2	3	4	5
4. I take an overall view of the text to see what it is about before reading it.	1	2	3	4	5
5. When text becomes difficult, I read aloud to help me understand what I read.	1	2	3	4	5
6. I think about whether the content of the text fits my reading purpose.	1	2	3	4	5
7. I read slowly and carefully to make sure I understand what I am reading.	1	2	3	4	5
8. I review the text first by noting its characteristics like length and organization.	1	2	3	4	5
9. I try to get back on track when I lose concentration.	1	2	3	4	5
10. I underline or circle information in the text to help me remember it.	1	2	3	4	5
11. I adjust my reading speed according to what I am reading.	1	2	3	4	5
12. When reading, I decide what to read closely and what to ignore.	1	2	3	4	5
13. I use reference materials (e.g. a dictionary) to help me understand what I read.	1	2	3	4	5
14. When text becomes difficult, I pay closer attention to what I am reading.	1	2	3	4	5
15. I use tables, figures, and pictures in text to increase my understanding.	1	2	3	4	5
16. I stop from time to time and think about what I am reading.	1	2	3	4	5
17. I use context clues to help me better understand what I am reading.	1	2	3	4	5
18. I paraphrase (restate ideas in my own words) to better understand what I read.	1	2	3	4	5
19. I try to picture or visualize information to help remember what I read.	1	2	3	4	5
20. I use typographical features like bold face and italics to identify key information.	1	2	3	4	5
21. I critically analyze and evaluate the information presented in the text.	1	2	3	4	5
22. I go back and forth in the text to find relationships among ideas in it.	1	2	3	4	5
23. I check my understanding when I come across new information.	1	2	3	4	5
24. I try to guess what the content of the text is about when I read.	1	2	3	4	5
25. When text becomes difficult, I re-read it to increase my understanding.	1	2	3	4	5
26. I ask myself questions I like to have answered in the text.	1	2	3	4	5
27. I check to see if my guesses about the text are right or wrong.	1	2	3	4	5
28. When I read, I guess the meaning of unknown words or phrases.	1	2	3	4	5
29. When reading, I translate from English into my native language.	1	2	3	4	5
30. When reading, I think about information in both English and my mother tongue.	1	2	3	4	5

7.4. Appendix 4: Reading Part of Self-Evaluation Questionnaire (Oxford, 1990, p. 183).

You have experienced an eight-week cognitive and metacognitive reading strategy instruction. In the light of the instruction you had, how do you evaluate your progress of reading comprehension? Please choose the appropriate option for each one.

1. How much do you understand of a typical passage in a magazine or newspaper in the new language (less than half, more than half, all of it)? _____

2. How much do you understand of a typical classroom reading passage (less than half, more than half, all of it)? _____

3. Has your reading comprehension improved since last month? (Yes / No)

4. Are you generally able to guess the meanings of what you read? (Yes / No)

On the basis of these questions give yourself a rating on reading (circle one):

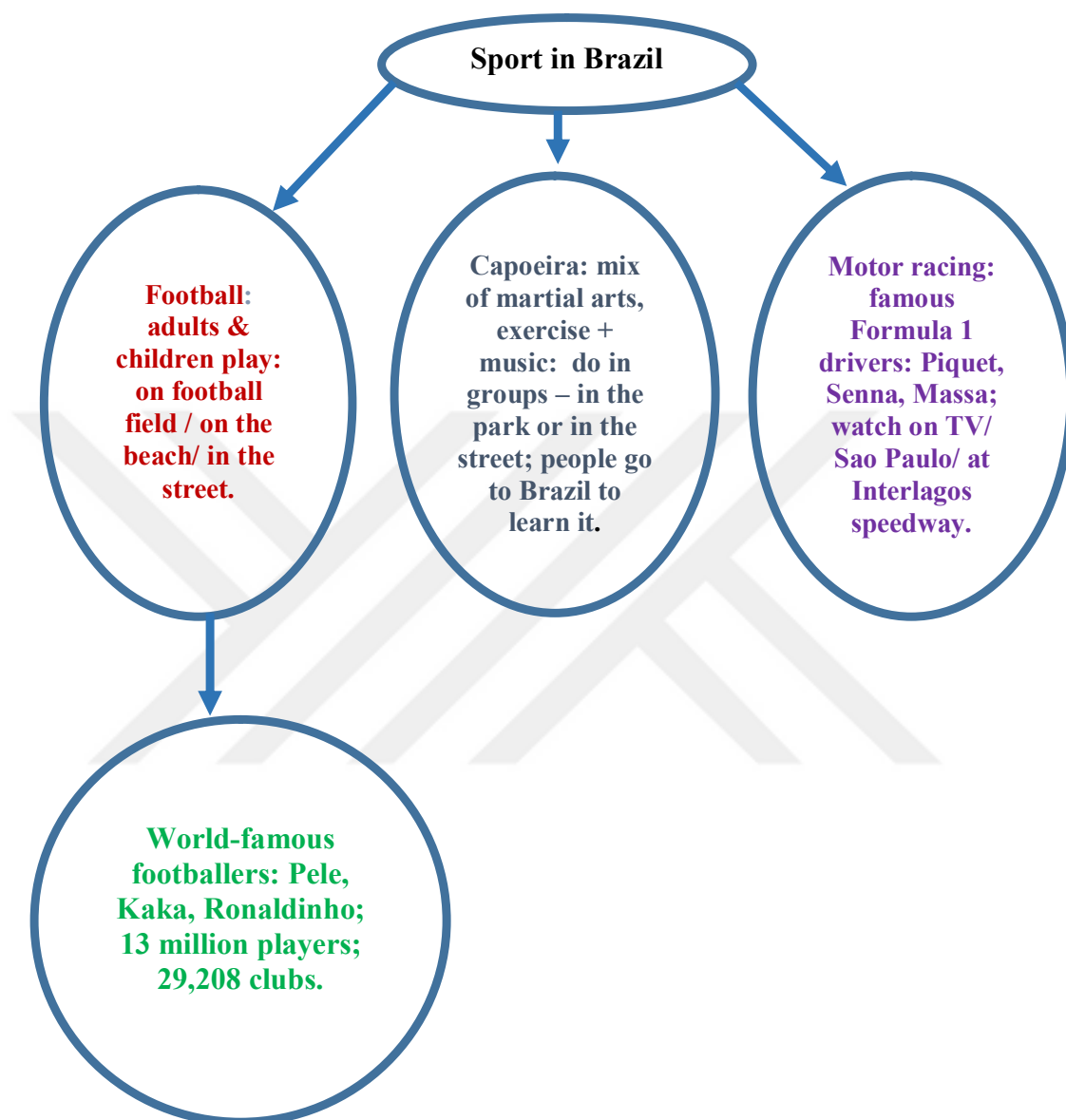
1. Doing just fine, about where I should be

2. Not too bad, nothing to worry about

3. Serious problems

7.5. Appendix 5: Ideas Map for Follow-up Activity

Created following the instruction from 'UNLOCK: Reading & Writing Skills'
(Ostrowska, 2014)



7.6. Appendix 6: The Text Used for Think-aloud Protocol

New Headway; Elementary Course Book, (Soars & Soars, 2011)

Reading

9 Galileo Galilei – the father of modern science

1 Read about Galileo. Correct the sentences about him.

1 Galileo was born in Padua.

Galileo was born in Pisa.

2 His father was a scientist.

3 He was a professor at the University of Pisa.

4 He was the father of six children.

5 His theory was that the sun went around the earth.

6 He spent his last years in prison.

7 He was completely deaf when he died.

2 Read the text again. Answer the questions.

- 1 What nationality was Galileo?
- 2 He was a physicist and a scientist. What else was he?
- 3 When was he born?
- 4 Where was he a student?
- 5 What was his job at the University of Padua?
- 6 Was he married?
- 7 What could he see with his telescope?
- 8 Why were his ideas dangerous?
- 9 Why was he not sent to prison?



Galileo Galilei – the father of modern science



Galileo Galilei was an Italian physicist, mathematician, astronomer, and philosopher. He was a brilliant scientist.

HIS EARLY YEARS

Galileo was born in 1564 in Pisa, Italy. He was the first of six children of Vincenzo Galilei and Giulia Ammannati. His father was a famous musician.

Galileo's early education was in a monastery. From there, in 1581, he went to the University of Pisa, where he was a student of medicine and mathematics. Then from 1592 to 1610 he went to the University of Padua. He wasn't a student at this university – he was a professor of mathematics and astronomy.

Galileo was the father of three children – two daughters and a son – but he wasn't married to their mother.

HIS SCIENTIFIC LIFE

Galileo made excellent telescopes. With them he could see moons going round the planet Jupiter and the planet Venus going round the sun. At the time, there was the belief that the earth was the centre of the universe and the sun went round the earth. However, by 1610 Galileo's theory was that the earth was not the centre of our universe. Galileo said that the sun was the centre, and the earth moved round it.

HIS LAST YEARS

Some religious organisations weren't happy with Galileo's theories. His ideas were dangerous because they were different from the ideas in the Bible. Finally, in 1634 there was a trial. Galileo was 70 and not in good health so he wasn't sent to prison, but he couldn't leave his house in Florence. It was here that he died in 1642. He was 78 years old and completely blind.

7.7. Appendix 7: The Text Used for Skimming and Scanning Strategies

UNLOCK; Reading & Writing Skills (Ostrowska, 2014)

Take a look!

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4.2



Figure 4.3: World Map by Muhammad al-Idrisi, 1154

Muhammad al-Idrisi came from Morocco. In his life, Al-Idrisi travelled to Asia, France, England and Spain.

Al-Idrisi's map of the world is called the Tabula Rogeriana in Europe. The map is in Arabic. His map helped people travel from country to country.

The map shows North Africa, Europe, and South and East Asia. There are many European countries on the map. There is Norway in the north, Spain in the west, and Italy in the south. The map also shows India and China.

There are forests, rivers, lakes, mountains, seas and oceans on the map. Al-Idrisi's map shows the Mediterranean Sea, the Indian Ocean and the river Nile.

7.8. Appendix 8: The Text for Background and World Knowledge Use

UNLOCK; Reading & Writing Skills (Ostrowska, 2014)

SPORT

UNIT 5

THE WORLD'S TOP FIVE FAVOURITE SPORTS

We asked 1,379 people from 18 different countries: 'What is your favourite sport?'

Here are the results of our questionnaire.

1 This is the number one sport in the world. There are over 3.5 billion fans! Millions of children play football at school. It is also the most popular sport to watch. Over 700 million people watch the World Cup on television. The most popular national teams are Brazil, Argentina and Spain. The most popular local teams are Manchester United, Real Madrid and Chelsea.

2 Yes! Many people are surprised but it is true. Some people think this English game is slow and boring. But many people think it is fast and exciting. It is very popular in India, Pakistan, Sri Lanka, Australia, New Zealand and England. 2.2 billion people watch the World Cup.

3 Another surprise! The number 3 sport in the world is not basketball or baseball. Almost 2 billion people around the world watch and play field hockey. The best teams are from Germany, Australia and Korea.

4 About 1 billion people in the world watch or play this game. The most popular competitions are the Australian Open, the French Open, Wimbledon and the US Open. Rafael Nadal from Spain and Maria Sharapova from Russia are famous players.

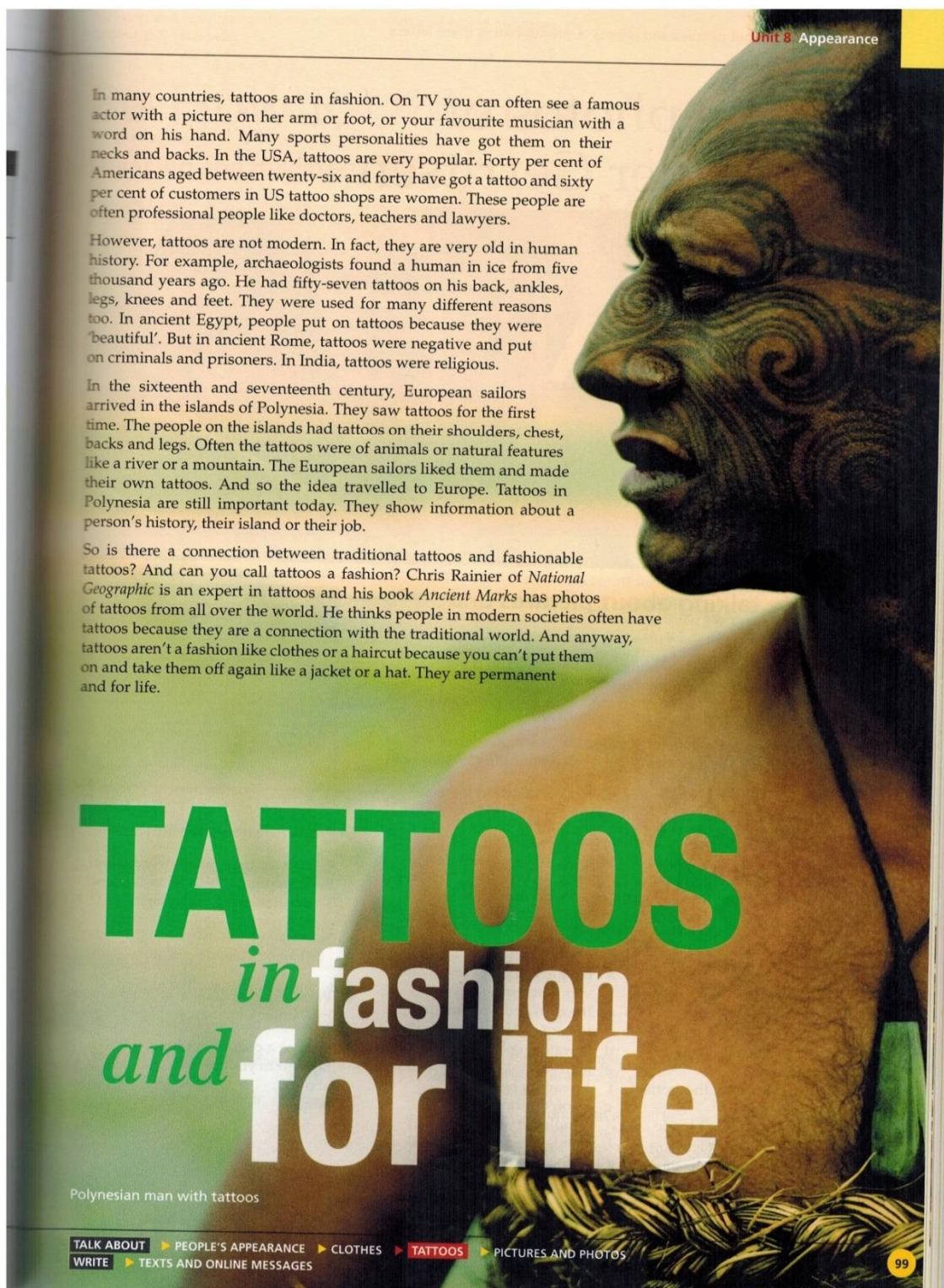
5 Over 150 million people watch Formula 1 on television. Grand Prix races take place in over 18 countries, including Malaysia, Korea, Italy and the United Arab Emirates. Famous drivers include the Brazilian Ayrton Senna and Britain's Lewis Hamilton.

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7.9. Appendix 9: The Text Used for Top-Down and Bottom-Up Strategies

Life Elementary; (Hughes et al. 2014)



Unit 8 Appearance

In many countries, tattoos are in fashion. On TV you can often see a famous actor with a picture on her arm or foot, or your favourite musician with a word on his hand. Many sports personalities have got them on their necks and backs. In the USA, tattoos are very popular. Forty per cent of Americans aged between twenty-six and forty have got a tattoo and sixty per cent of customers in US tattoo shops are women. These people are often professional people like doctors, teachers and lawyers.

However, tattoos are not modern. In fact, they are very old in human history. For example, archaeologists found a human in ice from five thousand years ago. He had fifty-seven tattoos on his back, ankles, legs, knees and feet. They were used for many different reasons too. In ancient Egypt, people put on tattoos because they were 'beautiful'. But in ancient Rome, tattoos were negative and put on criminals and prisoners. In India, tattoos were religious.

In the sixteenth and seventeenth century, European sailors arrived in the islands of Polynesia. They saw tattoos for the first time. The people on the islands had tattoos on their shoulders, chest, backs and legs. Often the tattoos were of animals or natural features like a river or a mountain. The European sailors liked them and made their own tattoos. And so the idea travelled to Europe. Tattoos in Polynesia are still important today. They show information about a person's history, their island or their job.

So is there a connection between traditional tattoos and fashionable tattoos? And can you call tattoos a fashion? Chris Rainier of *National Geographic* is an expert in tattoos and his book *Ancient Marks* has photos of tattoos from all over the world. He thinks people in modern societies often have tattoos because they are a connection with the traditional world. And anyway, tattoos aren't a fashion like clothes or a haircut because you can't put them on and take them off again like a jacket or a hat. They are permanent and for life.

TATTOOS

in fashion
and for life

Polynesian man with tattoos

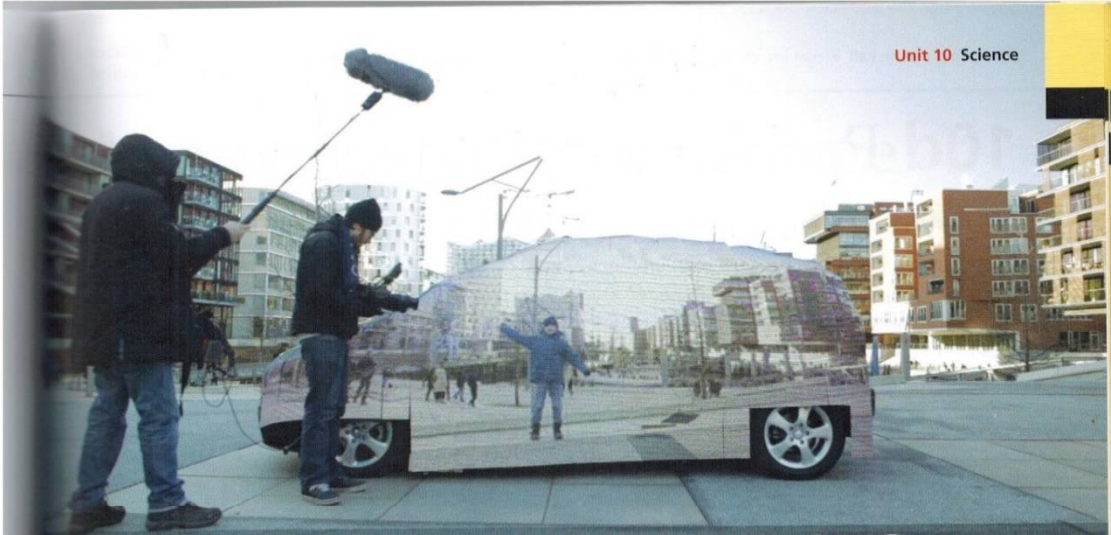
TALK ABOUT ► PEOPLE'S APPEARANCE ► CLOTHES ► **TATTOOS** ► PICTURES AND PHOTOS
WRITE ► TEXTS AND ONLINE MESSAGES

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7.10. Appendix 10: The Text for Using Visuals Strategy

Life Elementary; (Hughes et al. 2014)

Unit 10 Science



WHY HAVEN'T SCIENTISTS invented it yet?

Scientists have discovered and invented many things: computers, space travel, mobile communication. But there are a lot more things they haven't invented or we don't use in our everyday life. Are they all impossible or can we have them one day?

1 Invisible objects

Many scientists have tried to invent invisible objects, but they haven't done it. One scientist at Tokyo University tested cameras on a coat. The cameras filmed objects behind the coat and showed them on the front of the coat. Unfortunately, the coat wasn't very comfortable! The car manufacturer Mercedes also tried these cameras with a car. They put the camera on one side of the car and showed the images on the other side. But as you can see in this photo, the wheels aren't invisible.

2 Flying car

With all the cars on the road and the problems of traffic, why haven't flying cars become popular? One reason is because cars are very heavy so they are difficult to fly. There are other problems as well. Cities have roads for cars, but they don't have runways. And we have so many problems on our normal roads, do we really want the same problems in the sky?

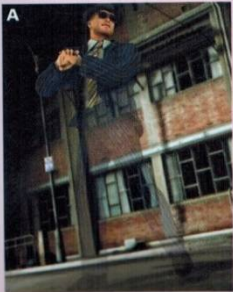
3 Teleporting

Teleporting is moving objects and people from one place to another without transportation or walking. Teleporting is a very fast way to travel, but scientists haven't discovered how to do it. Solid objects are made of atoms and with teleporting you have to move each atom one by one. A human being is made of trillions of atoms, so it's very difficult and scientists don't have the answer at the moment.

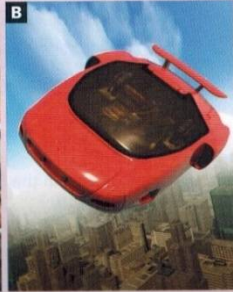
4 Robot servants

Actually, scientists have invented robots, so why don't we all have them? Probably because the technology is very expensive and the robots often break down. But many companies in Japan have made prototype robots for houses. They wash clothes, switch on the TV, turn off the lights and change the music. Many scientists think we can all have a robot servant in our home in about ten years.

A



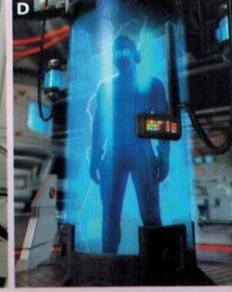
B



C



D



TALK ABOUT EXPERIENCE WITH TECHNOLOGY SOMETHING YOU HAVE LEARNED PROBLEMS WITH TECHNOLOGY

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7.11. Appendix 11: The Text Used for Strategy Revision

UNLOCK; Reading & Writing Skills (Ostrowska, 2014)

FOOD AND CULTURE

UNIT 8

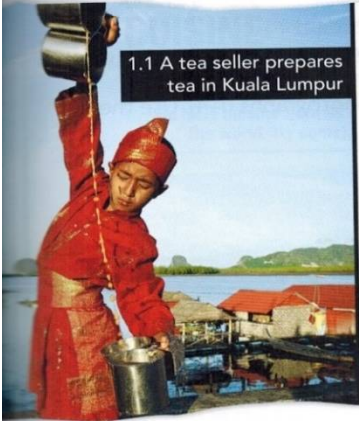
Tea: A World History

by A. Capper

INTRODUCTION: THE WORLD IN A TEACUP

Tea is tasty and good for you. It is also one of the most popular drinks around the world. But what is tea? And why is it so popular?

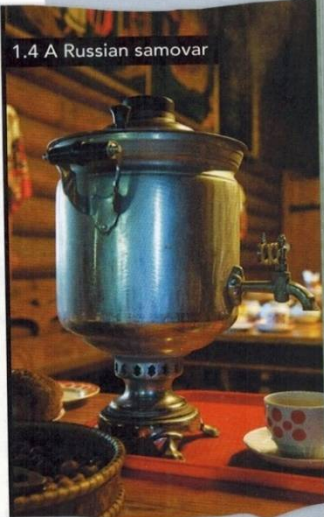
All tea comes from tea leaves but tea is not always the same. There are many kinds of tea. You can drink black tea, green tea, white tea or fruit tea. Each type of tea has a different taste and a different colour.



1.1 A tea seller prepares tea in Kuala Lumpur

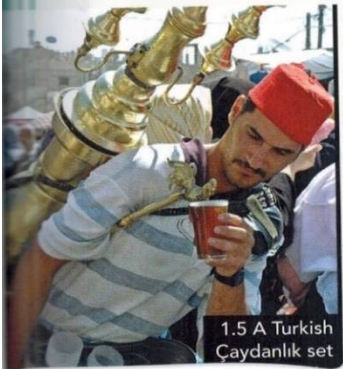
The history of tea begins in Asia. In China, Korea and Japan, tea is still very important today. In Japan, it can take many hours to prepare and drink tea with your guests. In Malaysia, a popular drink at breakfast is *teh tarik* ('pulled tea'). Malaysians say it is good for you and tastes good with *canai* bread.

Tourists in Kuala Lumpur like watching the tea sellers make 'pulled tea'. The tea sellers pour hot water on black tea. After five minutes, they add sugar and milk. Then they 'pull' the tea – they pour the tea from one cup to another many times.



1.4 A Russian samovar

In many countries, you must have a special kettle to make tea. People in different countries also like to add different things to their tea. For example, Russians use a special kettle called a *samovar*. They like drinking tea with lemon. Sometimes, they also drink tea with some sugar or jam.



1.5 A Turkish Çaydanlık set

In Turkey, tea comes in a *Çaydanlık*. A *Çaydanlık* has two kettles: one for the water and one for the tea. Drink Turkish tea with some sugar.

Arab tea, called *karak*, has cardamon, ginger, milk and sugar. In the United Kingdom, they add some milk and sugar.

The British usually eat biscuits with their tea. In Japan, they like...

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