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A Case Study of Metacognition in a Foreign Language Reading Context

Bir Durum Çalışması: Yabancı Dil Okuma Bağlamında Üstbiliş *

Nesrin Öztürk **

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ABSTRACT: This study aimed to examine a) L2 readers' perceptions of reading, metacognition, and motives for practicing metacognition in a foreign language learning context and b) the effects of a metacognition training program on these variables. For this purpose, a quasi-experimental case study was designed, and written questionnaires were developed. Findings confirmed that metacognitive individuals pertain reading to comprehension or goal attainment and they know physiological, cognitive, and affective factors might impact their performances. Some L2 readers might hold an understanding of meta-reading; skills and dynamics that facilitate and interfere with performance might transfer across languages. Following the training, participants' self-awareness increased and their strategic L2 reading changed. Their motivation and interest to read in a foreign language was also impacted, positively. Lastly, although metacognitive readers were aware of that strategic reading may be cognitively demanding; such readers would still continue practicing metacognition for efficiency with time, effectiveness with comprehension and EFL learning, and pleasure of awareness and self-confidence.

Keywords: Metacognition, EFL, reading, self-awareness, training.

ÖZ: Bu çalışma, yabancı dil öğrenme bağlamında a) yabancı dil okuyucularının okuma ve üstbiliş algıları ile üstbilişi kullanma motivasyonları ve b) bu çalışmada uygulanan üstbiliş eğitim programının bu değişkenler üzerindeki etkilerini incelemeyi amaçlamıştır. Bu amaçlar doğrultusunda, yarı deneysel durum çalışması desenlenmiş ve yazılı cevaplanacak sorular geliştirilmiştir. Bulgular, üstbilişe hakim olan bireylerin okumayı, anlama veya hedeflere ulaşma ile ilişkilendirdiğini ve fizyolojik, bilişsel ve duyuşsal faktörlerin okuma performanslarını etkileyebileceğini bildiklerini ortaya koymuştur. Bazı yabancı dil okuyucuları, meta-okuma anlayışına sahip olabilirler; yani, bu okuyucular okuma becerilerini ve okumayı etkileyen dinamikleri diller arasında aktarabilirler. Eğitimin ardından, katılımcıların öz farkındalıkları artmış ve yabancı dilde stratejik okumaları değişmiştir. Yabancı dilde okuma motivasyonları ve ilgileri de olumlu yönde değişmiştir. Son olarak, üstbilişi pratik eden okuyucular, stratejik okumanın bilişşel olarak yorucu olduğunu fakat, zamanda verimlilik, anlama ve yabancı dili öğrenmede etkinlik ve farkındalık ve özgüven kazandırması sebebiyle bu uygulamaya devam edeceklerini belirtmişlerdir.

Anahtar sözcükler: Üstbiliş, yabancı dil, okuma, öz farkındalık, eğitim uygulaması.

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** Öğr. Gör. Dr., Ege Üniversitesi, Yabancı Diller Bölümü, ozturknesrin@gmail.com

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Introduction

Metacognition pertains to *thinking about thinking* (Baker & Brown, 1984b; Flavell, 1979; Veenman, 2016). According to Flavell (1979), the actions and interactions of metacognitive knowledge, metacognitive strategies, and metacognitive experiences control cognitions. That is, one's knowledge of self, task, and goals along with the utilization of strategies can impact cognitive performances (Flavell, 1979). For its potentials, metacognition is studied in the field of education since its introduction. It was, thereafter, found that metacognition is an important predictor of learning (Veenman, 2016; Wang, Haertel, & Walberg, 1990) and it is a major distinction between low and high achievers (Paris & Jacobs, 1984; Pogrow, 2004). Metacognition is, in fact, a tool for effective learning (Fisher, 2002; Kerndl & Aberšek, 2012; Veenman, 2016; Wang et al., 1990).

For a successful reading experience, individuals need to employ both cognitive and metacognitive strategies. Individuals utilize cognitive strategies to comprehend and gain information from the text (Doğanay Bilgi & Özmen, 2014; Garner & Alexander, 1989; Gourgey, 2001) and metacognitive strategies for the effectiveness of cognitive strategies (Gourgey, 1998, 2001). Many research confirmed beneficiary impacts of metacognition on reading and these include improved reading awareness, skills, comprehension, performance, and responsibility taking (Boulware-Gooden, Carreker, Thornhill, & Joshi, 2007; Cross & Paris, 1988; Curwen, Miller, White-Smith, & Calfee, 2010; Veenman, Van Hout-Wolters, & Afflerbach, 2006).

Individuals' metacognition can show variations (Veenman et al., 2006); however, research demonstrated that students can be taught metacognition (Öztürk, 2015). That is, individuals can learn how to orient themselves to task demands or goals, monitor comprehension, regulate reading strategies to deal with comprehension failures, interpret and test predictions, evaluate one's intellectual enterprise, reflect on comprehension, and evaluate task performance, goal attainment, and effectiveness of strategies (Anastasiou & Griva, 2009; Baker & Brown, 1984a; Cross & Paris, 1988; Duffy, 1993; Pintrich, 2002; Schraw, 1998).

Offering independence with learning, reading is an important skill not only for schooling but also out of classroom. As Iwai (2011) emphasized due to the effects of globalization, English is a predominant language in many areas for various reasons including communication or expanding academic knowledge (Anjomshoaa, Golestan, & Anjomshoaa, 2012). Many individuals, therefore, are to develop a literacy competence in English as a second (ESL) or foreign language (EFL). In relation to the main focus of this study; in the following section, research was reviewed for metacognition's relation with or impacts on second/foreign language (L2) reading.

Literature Review

Metacognition theory proposed by Flavell (1979) and it holds tree components. Metacognitive knowledge pertains to declarative, procedural, and conditional knowledge of self, cognitive tasks, and strategies. Metacognitive regulation includes strategies by which individuals plan and monitor their cognitive enactments, regulate strategies, and evaluate both process and products of such acts. Metacognitive experiences, which seem to

be ignored or considered as granted at most instances, pertains to the experiences where highly conscious thinking occurs. This is when individuals think about and reflect on the task and goals, activate and benefit from metacognitive knowledge, and practice metacognitive strategies for goals, task demands, or performance.

In practice, metacognition theory with a focus on reading emerges as strategic reading. L2 readers are likely to encounter unfamiliar words, grammatical structures, or topics in most cases. This is when reading difficulties arise and L2 readers (should) intentionally evaluate and examine alternative approaches or sources to eliminate blockages in comprehension (Phakiti, 2006). For successful reading experiences L2 readers are to set strategic reading which is conscious, deliberate, and goal-directed use of reading strategies to complete task demands or attain reading goals (Ozturk, 2017b).

Available L2 research revealed that there might be a positive relation between readers' metacognition and different variables including a) foreign language reading processes (e.g. Chern, 1993; Zhang & Seepho, 2013), b) performance (e.g. Anjomshoaa et al., 2012; Karami & Hashemian, 2012; Phakiti, 2003; Zhang & Seepho, 2013), and c) language proficiency (e.g. Ozturk & Şenaydın, 2019; Zhang, 2001). That is, proficient or successful L2 readers might have more awareness of and effectively use metacognitive strategies (Alsheikh & Mokhtari, 2011; Barnett, 1988), just like successful native language readers (Maasum & Maarof, 2012; Mokhtari & Reichard, 2004). Whereas, learners with limited metacognition might perform poorly since such readers might not purposefully or intentionally invoke strategies and manage their reading (Karbalaei, 2010). Moreover, as Dreyer and Nel (2003), Aghaie and Zhang (2012), Muñiz-Swicegood (1994), and Takallou (2011) found, L2 reading scores might improve significantly following metacognition trainings. When research was designed to compare control and experimental groups' reading performance, the effects of metacognition training were found distinctive for experimental groups (i.e. Takallou, 2011). These findings in L2, in deed, align with the arguments of native language reading and metacognition research.

Problem. Although previous research revealed optimistic findings, it is also known that L2 learners may not be well-equipped to handle academic reading demands. That is, such readers might not possess an awareness of cognitive processes during L2 reading and they might not always regulate such processes, well (Maasum & Maarof, 2012). This problem may reveal divergent realities of research and classroom practices regarding metacognition. As Baker (2017) argued, research classroom learners' metacognition competence might not be representative of mainstream classroom learners' proficiency with metacognition (Baker, 2017).

Practically, such a problem should be interpreted especially regarding teachers' need for explicit directives and covert metacognition trainings delivered for research purposes. Previously Veenman et al. (2006) and Kerndl and Aberšek (2012), later I (2017) argued that there is no practical tools to help teachers implement metacognition instruction in their classrooms. Therefore, although there is research encouraging metacognition instruction, mainstream classrooms might not always produce similar outcomes regarding metacognition. Moreover, each classroom's- in fact, each individual's- needs and metacognition repertoire might vary. Because most research seems not revealing this

aspect of learning, delivery, identification of metacognition training's focus, and its benefits might be jeopardized. Indeed, both the instructional practices and focus might vary by students' needs and metacognition competencies at each instance.

Purpose of the Study

Research on L2 strategic reading, mostly, focused on the examination of related variables such as metacognition and reading performance, proficiency, or processes via quantitative methodology. Such research confirmed a positive relation among those variables. Similarly, examination and confirmation of metacognition training's effects was done by various numerical data sources including standardized instruments and reading scores. Although quantitative findings are invaluable for understanding the practicality of theories, researchers should make their studies amicable for classroom practices. Therefore, one of the aims of this paper is to present a practical and vivid metacognition training program that can be implemented in mainstream classrooms and altered, if necessary. By so, teachers' need for metacognition pedagogy can be satisfied, at least to some extent. However, it is more important to design such a program based on learners' realities. Therefore, this study also aims to offer an example uncovering learners' realities regarding strategic reading in a foreign language learning content to set a best-situated and need-based training program.

Regarding the research trends and current available findings on L2 strategic reading, this study will take a more exploratory stance and answer two questions as in the following;

a) How do L2 learners perceive reading, strategies, process of reading, and reading in different languages in an EFL context?
b) Can L2 learners' perception of reading, strategies, process of reading, and reading in different languages change following a 2-month metacognition training module?

Theoretical Orientations

To answer research questions, social perspectives of learning and self-regulation theory were adopted and a metacognition training program was designed. In the following, these theories and metacognition training features will be presented, shortly.

Social cognitive theory. Bandura's (Bandura, 1986; 1971) theory of learning is based on behaviorism and principles of social learning. According to Bandura, learning emerges as a product of personal, environmental, and behavioral factors. In his model, personal factors pertain to cognitive ability, knowledge, and expectations as well as environment which includes resources, consequences of the actions, models, and teachers (Woolfolk, 2016). Behavioral influences, on the other hand, may pertain to observation, encoding, retaining and retrieving knowledge of others' behavior and their consequences. In such a dynamic environment, individuals can *construct* knowledge through vicarious learning (O'Donnell, Reeve, & Smith, 2007; Zimmerman, 2000).

Self-regulated learning. Influenced by Bandura's theory, Zimmerman (2000) described developmental stages of regulatory skills. According to Zimmerman (2000), at

observational stage, individuals recognize the main features of an ideal regulatory enactment by watching a model. At *emulation stage*, individuals approximate the regulatory performances to the model's. To help individuals master such strategic behaviors, co-regulation and shared regulation can be utilized (O'Donnell et al., 2007; Woolfolk, 2016). Later, at *self-controlled stage*, individuals experiment self-regulatory strategies in a structured setting with a reference to the ideal performance. At this stage, individuals can use self-reinforcement to approximate their performances to the standards of the ideal behavior. Finally, at *self-regulatory stage*, individuals can set their goals and adapt their strategies systematically to regulate their behaviors, independently (O'Donnell et al., 2007; Woolfolk, 2016).

Bandura's and Zimmerman's learning models include *others* modelling, coaching, guiding, and providing feedback or reinforcement to the novices. In the following; therefore, social constructivism will be reviewed, shortly.

Social constructivism. According to Vygotsky (1978), individuals' learning experiences are mediated by language and social interactions. Indeed, language has a role in thinking, directing, and regulating cognitive acts (Tishman & Perkins, 1997; Woolfolk, 2016). Individuals can control their awareness and cognitions by private and inner speech. However, individuals can sometimes turn to more competent individuals for help when their methods are not completely helpful for a specific task. These might be instances where scaffolding is provided to the novice.

In relation to scaffolding, Vygotsky's theory (1978) highlights zone of proximal development (ZPD). ZPD distinguishes actual development and potential development levels. At actual development level, individuals can master tasks independently; whereas at potential development level, they need help from competent peers or models. The area between these two is called zone of proximal development (O'Donnell et al., 2007). In order for individuals to surrender in ZPD, scaffolding has a critical role. Modelling idealized performances, providing hints, reminders, examples, and prompts, simplifying the task, encouraging learners to set short-term goals and demonstrating the skills through processes, giving detailed feedback, and allowing revisions can be utilized in ZPD area so as to help learners become independent.

Metacognition training. Based on the aforementioned theories and following an in-depth-review of metacognition research, I developed a generic training program to help develop learners' metacognition in reading (Ozturk, 2017). This training model consists of seven crucial components including;

1. fostering learners' metacognitive knowledge by explicit teaching, modeling, and metacognitive discussions,
2. adopting goal directedness; explicitly stating the objectives of class, setting the criteria for goal attainment, and each parties' goal-setting for reading,
3. integrating language of thinking; teaching vocabulary to explain the rationale for cognitions and related acts, describing lines of thinking during reading, and sharing lines of thinking during and about reading,

4. scaffolding students' strategic reading experiences by sharing responsibility with students, providing students with instructional aids for strategic reading, encouraging students to demonstrate their strategic reading experiences, and promoting students' collaborative practices of strategic reading, and engaging all parties in metacognitive discussions,
5. encouraging students' independence with strategic reading,
6. assessing metacognition; teachers' assessment of students' metacognition and promoting students' self-assessment, and
7. prolonging metacognition training until students develop habits of thinking about reading.

This model basically requires implementation of 4 main components; fostering learners' metacognitive knowledge, scaffolding learners' strategic reading experiences, encouraging leaner's independence with strategic reading, and assessing metacognition. However, at every of these stages, other three components are to be diffused into instruction for learners' metacognition. These include adopting goal directedness, integrating language of thinking, and prolonging metacognition training. The procedures of training will be presented in detail in the next section of this paper.

Methodology

Participants

This quasi-experimental case study was conducted in the preparatory school of a state university in Western Turkey. The students were initially distributed to different levels of English after taking an institutional placement exam at the beginning of the academic year. Participants were placed in A1 classes to study English as a foreign language for 8 months. According to Common European Framework of Reference for Languages (CEFR), these learners were basic users of English (Council of Europe, 2001). By CEFR's definition, A1 users can understand and use familiar everyday expressions and very basic phrases for their concrete needs. They can exchange information about personal details such as where they live, people they know, and things they have. When others speak slowly and clearly, A1 users can interact with them in a simple way.

I was randomly assigned to teach reading skills to the participants. Therefore, participants were selected by convenience sampling method. The sample group was composed of 14 students. Of these students, 10 were female and 4 were male. Their majors were chemistry and their age ranged between 18 and 20.

Data Collection Tools

To collect data, qualitative methodologies were used. For this purpose, I developed two sets of written questionnaires in Turkish (see Appendix A) and distributed hardcopies to my students in class, timely. Because I wanted to eliminate any potential influences of a limited foreign language proficiency and to determine my students' needs to my best, I asked them to fill the questionnaires in Turkish. Moreover, I purposefully had my students answer the questions in class so as to clarify any vague points in their understanding of

questions. I also reminded my students be critical to their best and use pseudonyms to eliminate the effects of social desirability as much. Besides, I reminded them institutional standardized scoring policy and declared that data would only serve for research purposes. Therefore, any of them would not feel threatened and they could provide genuine answers.

This study aimed to examine L2 readers' perceptions of and possible changes in their perception of L2 reading, metacognition, and motives for strategic reading. Therefore, data were collected at two stages; just before and after the treatment. Pre-treatment qualitative questions pertained to the fundamentals of reading. This set aimed to find out the needs of the learners; therefore, the content and focus of the training can be set accordingly. Following the treatment, another set of questions was delivered. Post-treatment question set contained items that aimed to detect a) any changes in students' perceptions of fundamentals of reading and metacognition and to study b) the motives for practicing strategic reading in an EFL context.

Findings of the initial needs analysis. Data collected at pre-treatment stage helped identify the focus of the training and modify its flow. As findings section will disseminate pre-treatment analysis in detail, I provide a short summary here. The initial needs analysis confirmed that participants were aware of the purpose of reading and some factors that might impact reading. Therefore, I did not spend much time on these aspects. However, I had to focus on reading strategies and stages of reading because most participants did not name any strategies although they could declare some regulatory control over reading. Moreover, few participants were aware of their reading characteristics and it was to a very limited extend. Most participants, also, thought that reading in different languages require different cognitive processes. By the initial needs analysis, I determined the core elements of metacognition training module in this study; I focused more on self-awareness, recognition, and practice of reading strategies in L2.

Metacognition Training Procedure

Metacognition might be a complex or vague concept (Papleontiou-louca, 2003) for some learners and the participants in this study were not proficient enough in English as a foreign language at the time of the training. Therefore, I aimed to control cognitive load that might either stem from the construct itself or my students' limited language proficiency and I delivered metacognition training in participants' native language for the best outcomes.

The training lasted for 2 months; it started in the second week of October and lasted at the end of the second week of December. The participants had 6 hours of reading class in a week. During the first four hours of the class, I instructed for the intuitional standards and then in the following two hours, my students practiced different components of metacognition. In total, my students attended a 16-hour training module of metacognition that flows through the gradual release of responsibility. However, the generic metacognition training program was modified according to the findings of initial needs analysis.

On the very first week, I held a comparative approach to raise awareness towards L2 strategic reading and diminish any potential misconceptions about it. I asked my

students to read any short text in Turkish and discuss their meaning making process, in class. During this time, my students and I discussed anything potential that can help and demolish comprehension. These factors may pertain to motivation, background knowledge, problems, strengths, external factors, available resources, feelings, and time etc. The purpose of this section was to familiarize my students with the upcoming strategic reading practices. Then, I exposed my students to my explicit teaching, modeling, and metacognitive discussions of strategic L2 reading. This is when I explicitly taught components of metacognition and showed how my metacognitive knowledge and regulation can impact my reading acts. I showed why I have some reading problems (e.g. unfamiliar vocabulary or topic) and how I solve these problems by presenting a number of reading strategies via *WWWH* rule (What, When, Why, and How). I modeled my strategic reading experience using a graphic organizer for task completion and goal attainment. During my modeling, I also thought aloud about myself as a reader including my interests, motivations, skills, and knowledge and about the rationale of my acts; choosing some strategies, monitoring my comprehension, and evaluating my process and performance. While I modeled and thought aloud, I let my class ask any questions or raise any objections to my acts. Then, we discussed how and why my acts impacted reading processes and products.

Then, I implemented the second stage of the training; scaffolding learners' strategic reading. At this stage, I shared strategic reading responsibility with my students and I had them contribute to strategic reading experiences. We -*together*- planned reading (by for example, setting goals, discussing the topic and task demands, and choosing appropriate strategies), monitored comprehension, regulated strategies for comprehension and regarding reading goal, and evaluated reading process, strategic acts, comprehension, and goal-attainment. This is when I had my students name strategies and explain the rationale for their choices. I also used and had my students use instructional aids (like metaphors, analogies, graphic organizers, reading action plans, thinking maps, rubrics) to demonstrate their strategic reading acts both to me and to their mates. During this period, my students started to test, discuss, and modify their knowledge about self, task, and strategies, as well as practiced strategic reading together while using some instructional aids. They also evaluated outcomes and discussed their evaluation with others; mates and me. I provided necessary feedback and scaffolding by joining their groups from time to time. These procedures lasted for another 4 instructional hours (two weeks).

Later, I encouraged my students to practice strategic reading independently for another two-weeks period and during the exam. During these two weeks of independent experiences, I provided my students with guidance, scaffolding, feedback, and reinforcement, if needed at all. My students worked independently, used instructional aids, and demonstrated their strategic reading to each other. They also discussed strategic actions, performances, and products with peers and provided feedback to each other. This is when my students were expected to gain independence with planning reading, monitoring comprehension and managing comprehension failures, regulating strategies, evaluating comprehension, goal-attainment, strategy use, and performance for authentic tasks. They were to reflect on their strategic reading experiences, weaknesses, strengths,

and potentials to improve, independently. They were to reflect on thinking about reading. Following these two-week practices, my students took a mid-term exam delivered by the institution. I reminded them to implement strategic reading, if need be.

Finally, on the last two weeks of the training, I gave a voice to my students to talk about their strategic reading experiences and asked them to do summative self-assessment. They were asked to evaluate their progress, performances, changes, challenges, weakness and strengths during the training and to reflect on the impacts of metacognition training on their reading experiences and performance. I also let them propose some ideas for future trainings. Therefore, I could think about amendments or changes in my instruction. Then, I compiled comprehensive assessment results and informed my students about their metacognition competency. For this purpose, I used different methodologies including instruments (such as Metacognitive Awareness Instrument; Schraw & Dennison, 1994), surveys, and focus-group discussions. I shared the instruments with my students for future references, in case they would do another evaluation themselves.

As mentioned beforehand, I supported each stage utilizing the other components including using a language of thinking, adopting goal-directedness, and prolonging the training. For the language of thinking, my students and I always utilized some sets of vocabulary items which can express the rationale for strategic acts. For example, such language might sound like "I *hypothesize* that we are going to read about sharks. *It is because* there is a picture here, I *think* it is the ocean and there is something on the surface, like triangle. *I assume* it must be something alive; so maybe it is about sharks." Another student may respond to the previous student as "I see, you use your *background knowledge*, but I *object* that this text is about sharks. I know that there are millions of creatures in the ocean as I studied that. For this reason, I *propose* that it is about seashells, a very distinctive one. I will *test this assumption* by skimming the paragraphs very quickly." Moreover, my students and I always set reading goals before reading. It was important to activate metacognitive knowledge especially about the text and rise their interest or motivation towards the topic; therefore, they could choose and use strategies, purposefully. Goal-directed reading helped my students manage their reading acts by eliminating obstacles as much and setting a direction to follow with the help appropriate strategies. Finally, to cultivate habits of thinking about reading and reading strategically, I extended the practice to 2 months.

Data Analysis Procedures

Data were analyzed via qualitative methodologies. Written data were collected from my students and coded twice. Then, these codes were grouped into themes as in the following;

- *fundamentals of reading* set includes learners' understanding of reading, (pre)requisites for reading, and themselves as a reader. This set helped examine learners' initial needs and set the focus of metacognition training,
- *reading in different languages* pertains to learners' understanding of meaning making in different languages and the nature of strategic reading. This theme aimed to explore possible difficulties for foreign language readers while they

construct meaning; therefore, necessary strategies can be highlighted at least for academic purposes,

- *strategic reading's sustainability* set pertains to the changes in students' perception of strategic reading (in different languages) and their motives of practicing strategic reading for future academic experiences.

The inter-rater reliability was not calculated for the qualitative data as the uniformity of the participant answers (codes) was striking at two stages of the analysis.

Findings

In this section, the qualitative findings will be presented. The quotations belong to pseudonyms.

Fundamentals of Reading

Before the training, almost all students reacted to the first question (i.e. What is reading?) unanimously except one. That is, 13 of my students taught that reading pertains to *comprehension* or *goal-attainment*. Reading, specially, is

- visualizing the meaning in the mind that is conveyed by a group of prints on a specific topic; comprehending and interpreting the meaning,
- an intellectual activity that helps individuals gain or improve knowledge, broaden perspectives, change perceptions, understand emotions and ideas,
- the most common learning method, and
- a way to give meaning to life; a tool for self-actualization.

Only one student mentioned that reading is an act of transferring the print to the brain through the actions of the eyes.

Regarding the (pre)requisites of reading, my students named some physiological, cognitive, and affective factors. Three of the students mentioned that people need to perceive, spell, and decode prints which are then transferred to the brain's specific areas. By this physical *"competence"* (Sema, italics added), readers then construct, comprehend, visualize, and interpret the meaning. In addition to physical receptiveness, some students focused on cognitive aids. Six of them stated that readers can make use of some skills to understand or interpret meaning. These students, however, did not name any specific strategies or skills. Only 3 students could name some strategies and stated that they make meaning by "for example, making predictions or inferences" (Damla). However, 3 other students stated that there is no necessary knowledge, strategies, or skills to read. Moreover, five of the students touched upon psychological aspects of reading. These students mentioned that curiosity and motivation are crucial for reading and readers' background knowledge and interest in topic definitely influences motivation and performances. Finally, two of the students mentioned that empathy and open-minded-ness can also affect reading.

Lastly, my students were asked to reflect on their reader identity. The spectrum of the answers got even narrower here. Analyzing the answers, I concluded that few of the students (4) were somehow aware of their reader-characteristics. These students only mentioned that they love reading what they are interested in and choose, wisely. Two of

them also stated that they "like to think about the meaning" (Sevbu) and "take different perspectives" (Blue days). 5 other students simply stated they love reading and 2 students do not like or simply *hate* reading. 2 of them stated that they either read all the time or stop it, at all. Only one student stated that they do not know what kind of reader they are.

Effects of metacognition training on fundamentals of reading. Following the training, all students unanimously stated that they became more aware of themselves as a reader and developed an awareness of numerous reading strategies and in relation, a control over reading process. They stated that they are more aware of their reader characteristics; metacognition training helped them identify "how and why they choose to read, what and why they read, and detect why comprehension problems occur" (Sevbu).

My students also revealed that they learnt many strategies and "knew what to do before, during, and after reading" (Kirmizi) for the best outcomes. All students named different reading strategies such as checking for the topic, skimming, scanning, analyzing text-organization, taking notes, highlighting important points, making predictions, checking understanding, asking questions to oneself, thinking about the details, making inferences, using graphic organizers, discussing the meaning with others, peer-check, and guessing the unknown vocabulary using the context.

Moreover, some of my students recognized that they could read topics that are "not interesting or boring" (Black) using some of the strategies. They could sustain their attention more by planning reading and regulating strategies strategically and get the gist, at least for task-completion. Few students, on the other hand, recognized that there were some problems in using these strategies. Such instances showed some evidence that metacognition training was fruitful in developing awareness and initiating strategic reading practices.

Reading in Different Languages

The pre-treatment analyses revealed two distinct patterns in students' perception of reading different languages. Before the treatment, only 4 students mentioned that reading in English and Turkish is not different experiences because they read for the gist. These four students emphasized thinking and constructing an image in the mind during reading. Therefore, they stated that reading process is same across languages.

Rest of the students mentioned that reading in English and Turkish may be different experiences for several reasons. While these students proposed some reasons, they, in deed, highlighted potential problems for L2 reading comprehension, as previously revealed by Phakiti (2006). In this study, 4 of the students mentioned that when they read in English, they have to translate the text into Turkish. As one of my students (Kenzo) mentioned, because of translation, reading in English "can be tiring". Moreover, some students stated that they have to look up unknown vocabulary items or some structures in the text are unfamiliar. They have to think about the vocabulary items or structures; therefore, they cannot *just* focus on the meaning. For these particular students, it felt like *they are in between the languages* and "building meaning in English is an effortful task" (Damla). Interestingly, these 10 students who declared that reading in different languages are different experiences believed that for proficient L2 readers, there would be no

differences or problems in reading different languages. Lastly, one of the other potential elements for L2 reading problems might pertain to "cultural differences" as few students (e.g. Merin) strongly emphasized. Such a difference might disturb one's L2 comprehension because "ways of thinking are different" (Blue days).

Effects of metacognition training on reading in different languages. Following the training, students' perception of reading different languages changed, dramatically. All students revealed similar positions like Blue Ocean who expressed "There are no differences between reading in a foreign language or native language. It is because language is a tool and we focus on the meaning or comprehension." My students got aware of that they can "use same regulatory strategies and still read in different languages" (Blue Ocean). It might be that my students developed a meta-understanding of reading.

Getting more aware of themselves as readers, some students also mentioned that it is not simply the language but it may be background knowledge or interest in the topic that causes comprehension problems while reading in any languages. This is because when they do not know much about the topic, they do not know a bunch of vocabulary items, either. Moreover, as long as they "had some background knowledge about the topic, even the unknown vocabulary might not be a problem to construct meaning" (Ezgi). When readers are interested in the topic, they do their best to understand the text; therefore, they try to "use strategies efficiently, allocate more time, and do not surrender, easily." (Merin).

In relation to their perceptions of reading in different languages, students were also asked whether their L2 reading performance changed, if at all following the treatment. Almost all students (except 2) agreed that their L2 reading processes and performances changed, significantly. They revealed that they understand and verbalize what they read better. They became more conscious and confident of what they read as they are armed with strategies. They developed an interest in L2 reading as they could read better and faster. Moreover, one of the students commented on the effects of metacognitive strategies on learning English. Merin stated that "metacognitive strategies helped me learn English more. I felt motivated and enjoyed reading in English more; therefore, I learnt English more…"

Strategic Reading's Sustainability

Following the training, my students' perceptions of strategic reading were also investigated. For this purpose, my students were firstly asked whether they need time and put more effort to utilize metacognitive strategies, efficiently. Eleven of the students stated that development of metacognition takes time and effort. Some students mentioned that before the training, they read the text as it is, and did not need to "analyze" (Kirmizi) and "think about it *deeply"* (Sema & Blue Ocean, italics added). After the training, my students realized that "strategic reading takes more time" (Black & The gold elephant) and "effort" (KS & Kirmizi). Although the text is simple, because they think about the text, predict, take notes, elaborate on the meaning, establish links between the text and their life or knowledge, and analyze meaning construction process, they spend more time and effort. Moreover, some others stated that strategic reading is a habit that should be developed at younger ages rather than at 18-20. As Blue Ocean stated they needed to "break the routine

of *reading traditionally"* (Blue Ocean, italics added), "put effort, and develop a new understanding and practice of strategic reading." (Batar).

Three students, on the other hand, mentioned that strategic reading may not require extra time and effort. These learners actually appreciated metacognition much and already took responsibility to develop strategic reading. Therefore, they did not think about time and effort. One of these students stated that "reading metacognitively is a form of awareness and one should know what, why, and how to read regardless of time and effort." (The gold elephant). Another student (Sevbu) revealed that strategic reading pertained to just discovering about themselves and knowing how they can read effectively. Also, the third student (Merin) stated that strategic reading is beneficial and interesting for those especially who love reading. So, if one loves reading, they do not think about time and effort; they just strive to improve it to their best.

Finally, my students were also asked whether they would use metacognitive strategies or do strategic reading during their future academic life. Twelve of them responded back positively; they stated that they would benefit from metacognitive strategies or strategic reading during the upcoming years. The students stated various reasons for it. These could be categorized into three as in the following;

- efficiency;
  - reading faster,
  - reading more efficiently in a short time,
  - managing time more efficiently,
- effectiveness;
  - understanding the text better,
  - thinking about the text in detail and deeply,
  - analyzing and interpreting the text successfully,
  - learning more efficiently from the text by strategic reading,
  - attaining reading goals,
  - managing unfamiliar/uninteresting texts by using different strategies,
- affective;
  - feeling more self-aware,
  - feeling more open to reading,
  - feeling more confident while reading strategically,
  - enjoying reading awareness,
  - enjoying self-questioning.

Limitations

This study is limited by its setting, context, and available resources. A non-randomly chosen small sample was definitely a limitation; the findings might not be generalized easily to larger contexts. Moreover, regarding data collection tools and

analysis, there might be some unexplored or unexamined issues especially regarding L2's practices across different countries. Also, although I took precautions to control social desirability, there might be few learners who were unwilling to share their genuine thoughts or experiences. Therefore, this study can be replicated with a larger number of students chosen randomly to ensure qualitative findings in this study.

Furthermore, this study never assessed regulatory strategies by on-line methodologies; therefore, it cannot be taken granted that students developed or have metacognitive strategies at their disposal or they can use them when appropriate (Veenman, 2005). Coding the anonymous data, I found out that three students never apply metacognitive strategies especially during the exam although they appreciate strategic reading. They stated that strategic reading took more time or they had to put more effort to read so. Therefore, they did not want to risk their time or focus on analyzing the text during the exam. For this limitation, future research needs to assess regulatory strategies and then, interpret findings.

Discussion and Conclusions

This study provides potentials to contribute to understanding and utilization of metacognition, specifically in an EFL context albeit its limitations. First of all, this study confirmed that L2 learners' understanding of reading pertains to comprehension and goal-attainment and they actually showed a strong sense of "meaningfulness of reading" as Gourgey (1998, p.84) and Anastasiou and Griva (2009) highlighted for metacognitive readers. Metacognitive students in this study also reported that they are aware of reading processes and factors that can influence their reading performances as argued in its broad literature (e.g. Gourgey, 2001; Kurtz, Schneider, Carr, Borkowski, & Rellinger, 1990; Zimmerman, 2002). In this study, these factors were highlighted as psychological, cognitive, and affective. Like L1 metacognitive readers, L2 readers are aware of that they need to decode print correctly, perceive it fluently, and utilize their knowledge of world and language, cohesively. They also know that their interaction with the text creates meaning as highlighted by many researchers as a capability of metacognitive readers (e.g. Afflerbach & Meuwissen, 2005; Alderson & Urquhart, 1984; Jacobs & Paris, 1987; Pressley & Gaskins, 2006). My students in this study also appreciated and practiced many strategies such as making predictions or inferences, skimming, analyzing the text organization, and utilizing background knowledge etc. to construct meaning from the print and to control their reading processes. Moreover, as metacognitive readers are aware of their strengths and weaknesses (Pressley & Afflerbach, 1995; Zimmerman, 2002), in this study my students also developed a competency to evaluate the influences of personal characteristics and affective factors, such as interest and motivation on their reading processes and performances.

Form an applied-linguistics perspective, these findings that both L1 and L2 metacognitive readers reveal similar understandings and practices of strategic reading can relate to Cummins's (1979) interdependence hypothesis. Cummins proposed that the level of L2 competence is partially a function of L1 competence (1979) and cognitive proficiencies in both L1 and L2 are interdependent; they are manifestations of the same

underlying dimension (Cummins, 1980). Cummins (1980) stated that "previous learning of literacy-related functions of language (in L1) will predict future learning of these functions (in L2)" when other factors such as motivation to learn L2 or adequate exposure to L2 is sufficient (p.179). Besides, older learners, whose academic/cognitive proficiencies are adequate, can acquire academic/cognitive L2 skills more rapidly (Cummins, 1980). Therefore, it is clear that metacognitive L2 learners can easily develop a meta-understanding of reading. As some of my students in this study clearly highlighted, metacognitive readers undoubtedly know that there are linguistic differences between Turkish and English and ways of thinking may be different; however, they can still eliminate or manipulate at least some blockages to meaning by transferring L1 reading aids to L2 or by developing new habits of strategic reading in L1, if not directly and immediately in L2.

Metacognition trainings, on the other hand, is another element that needs elaboration. By schooling and due to effects of standardized tests, some learners might develop some strategies or skills to cope with academic tasks; in other words, they might be already metacognitive individuals or their competency with metacognition might be sufficient. Still, some learners may not be aware of that they actually use regulatory strategies but they may not name strategies as in this study. Or else, some learners simply might not possess a sufficient repertoire of metacognition, as argued by Veenman et al. (2006). For these reasons, before such trainings a needs analysis is to be conducted to determine the focus and to reinforce the effectiveness of trainings. It is also important to remember that just like needs, learning outcomes may show variations as observed in this study. It might not be possible to help all students reach the same level of metacognition competency. Such trainings can help a) some learners explore themselves as readers and appreciate strategic reading albeit their limited competency, b) some others refine their repertoire of reading strategies and manage it, or c) some others develop an agency and responsibility for learning, as also found by Curwen and colleagues (2010), Alsheikh and Mokhtari (2011), and Barnett (1988), previously. While potential factors of such a variation needs examination and although variations in metacognition competence may exits, learners should still be supported to realize or achieve a control over reading process, master sufficient comprehension, and improve their foreign language proficiency. Moreover, research studies most of the time focus on cognitive aspect of learning. However, it may be that metacognition impacts psychological factors of learning that help learners achieve cognitive tasks. As in this study and previously found by researchers including Chern (1993), Zhang (2001), and Zhang and Seepho (2013), metacognition can impact learners' interest towards L2 reading and boost their confidence, positively.

Pedagogical Implications

This study has potentials to contribute to classroom practices of metacognition. First of all, it can satisfy teachers' needs of explicit tools or directives to teach metacognition in their classrooms. There might be some teachers unfamiliar with the theory or some teachers might not know how to implement metacognition instruction (e.g. Author 2016, 2017). As this paper portrays a metacognition training program with a detailed description of teacher's and students' roles, novice teachers or teachers who want

to practice metacognition can easily calibrate their instruction to their purposes. This training program does not specify certain techniques or methods; however, it depicts a framework developing strategic reading practices. Therefore, after classroom teachers do an initial needs analysis and examination of learners' metacognitive competency, they can set the focus and design the training for their students.

My students' elimination of a distinction between native and foreign language reading also highlights some practical implications. In this study, my students' successful experiences with strategic L2 reading might herald that metacognition has great potentials to demolish the notion of undetached cognitive skills and control students' foreign language reading problems, to some extent. As Zimmerman (2002) argued, metacognitive individuals can transfer metacognitive skills to new task situations and practice them for new task demands. My students in this study reported that metacognition can provide some help while tacking with some L2 problems (e.g. unfamiliar vocabulary, complex structure, and unfamiliar/uninteresting topic etc.). Therefore, classroom teachers can provide readers some opportunities to activate and transfer their L1 reading aids to L2 and manage L2 reading experiences, successfully. This finding needs more attention especially regarding lower-proficiency L2 learners. Such learners indeed try to manage a different language, comprehension, tasks, and maybe anxiety while they strive for good grades or task completion. Therefore, they can get some assistance to experience success and feel confident via strategic reading.

Moreover, this study identified that L2 learners can appreciate metacognition for their academic life. That is, benefits of strategic reading may not be limited to just reading in English, but can be applied to any academic subject. Therefore, it may not be difficult for teachers to present and practice strategic reading during their instruction as long as such instruction appeals to learners' motives. It is important for teachers to remember that L2 readers can practice metacognition beyond and above just getting good grades. L2 learners' may practice it for metacognition's effectiveness with comprehension and learning, efficiency with time, and its offering a pleasure of awareness and self-confidence. By so, language education programs can consider incorporating metacognition into their curriculum and give teachers some room to design their classes accordingly.

Lastly, integration of metacognition into curriculum might be promising; however, it can also be unproductive of success. As previously stated (Ozturk, 2017a), metacognition is not assessed in schools. Therefore, as expected and revealed by few students in this study, learners might not always employ metacognition although they have enough competency or trained for strategic reading. Unless assessment practices create metacognitive experiences that requires higher order thinking through employment of metacognitive knowledge and strategies, it may be unrealistic to expect students manage and engage in strategic reading. Therefore, considering its benefits and learners' reluctance to practice metacognition unless asked, not only instructional practices but also assessment practices need to allocate some room for metacognitive experiences and promote them.

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Appendix A
*Written Questionnaires**

Pre- treatment

1. Okuma nedir? *(What is reading?)*
2. Okuma eylemi nasıl gerçekleşir? *(How does reading occur?)*
3. Okuma eylemi için gerekli bilgi, beceri ve yeterlilikler var mıdır? Varsa nelerdir? (*Do you think that there are some knowldge, skills, and capabilities for reading? If at all, what can these be?)*
4. Kendinizi nasıl bir okuyucu olarak tanımlarsınız? *(How can you define yourself as a reader?)*
5. İngilizce ve Türkçe okuma eylemleri birbirinden farklı/ birbiriyle aynı mıdır? Nasıl, açıklayınız?
(Do you think that reading in Turkish and in English is simillar to and/or different from each other? Explain your response)

Post- treatment

1. Sizce aldığınız üstbiliş eğitimi
    a. kendinizi okuyucu olarak tanımanızda/ tanımlamanızda
    b. okuma eylemini tanımanızda
    c. okuma eylemi için gerekli olan bilgi, beceri ve yeterlilikleri tanımanızda etkili oldu mu? Nasıl, açıklayınız?

(Do you think that meatcognition training was effective in your recognition/ awareness of
    a. yourself as a reader
    b. reading
    c. knowledge, skills, and capabilities for reading? Explain your responses.)

2. Sizce aldığınız üstbiliş eğitimi okuma algınızı değiştirdi mi? Nasıl, açıklayınız?
(Do you think that metacognition training impacted your perception of reading? Explain your response.)
3. Sizce aldığınız üstbiliş eğitimi okuma başarınızı etkiledi mi? Nasıl, açıklayınız?
(Do you think that metacognition training impacted your reading performance? Explain your response.)
4. Sizce üstbiliş fazladan çaba ve zaman gerektiren bir uygulama mıdır? Nasıl, açıklayınız?
(Do you think that metacognition requires extra time and effort? Explain your response.)
5. Sizce aldığınız üstbiliş eğitimi bundan sonraki akademik hayatınızda kullanabileceginiz bilgi ve becerileri kazanmanıza yardımcı oldu mu? Nasıl, açıklayınız?
(Do you think that metacognition training helped you gain knowldge and skills that you would use during your future academic studies? Explain your response.)
6. İngilizce ve Türkçe okuma eylemleri birbirinden farklı/ birbiriyle aynı mıdır? Nasıl, açıklayınız?
(Do you think that reading in Turkish and in English is simillar to and/or different from each other? Explain your response)

*The questionnaires were distributed in Turkish. Translations were provided here for future uses.