

Improving Reading Comprehension Skills with Children's Books through Metacognitive Strategy: The Turkish Context

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Abstract

The aim of this study was to explore the effect of metacognitive strategy in improving reading comprehension skills through children's literature of literary quality. A quasi-experimental study was carried out in a private secondary school in a city located Middle Black Sea region of Turkey. Two classes were randomly chosen as the study group, and since the academic achievement scores of the students in these two classes were similar, one class was assigned as the experimental group and the other as the control group. There were 35 students in experimental group whereas while the control group consisted of 30. The results of the study were analyzed using independent t-test samples to determine if there was a significant difference in reading comprehension skills during the pre-test and the post-test between the experimental and the control group. Moreover, One Way Ancova analysis was used to determine the effect of metacognitive strategy on improving reading comprehension skills in books of literary quality. According to the results of t-test analysis, there was a significant difference of between the experimental and the control group in reading comprehension skills. As a result of One Way Ancova analysis, a significant difference was found between the pre-test and the post-test in the experimental group. Thus, when students used metacognitive strategy in books of literary quality, they obviously advanced in terms of their reading comprehension. This fact suggests that using metacognitive strategy in books of literary quality helped students in the experimental group improve both their reading skills and reading comprehension skills, when compared to the control group, in which an attempt was made to improve reading and comprehension skills in the conventional way.

Keywords: metacognitive strategy, reading comprehension, children's books, quasi-experiment

1. Introduction

Secondary school years represent a significant transition period for most Turkish adolescents. In addition to experiencing enormous changes in their bodies, most struggle with building moral rules and values, trying to be a contributing member of society, establishing an independent personality, preparing for an important exam, establishing new friendships, transitioning to a new school, and entering puberty (Şahin, Barut, & Ersanlı, 2013a, 2013b; Şahin, Barut, Ersanlı, & Kumcağız, 2014; Şahin, Ersanlı, Kumcağız, Barut, & Ak, 2014; Şahin & Topkaya, 2015). A possible way for Turkish adolescents to effectively cope with these challenging tasks may be to develop their reading skills. The purpose of this study is to examine the effectiveness of an intervention that aims to improve reading comprehension of first year secondary school students.

Improving reading comprehension skills is based on qualified interactions performed by language (Aslan, 2007a; Dickinson & Porche, 2011; Spear-Swerling, Brucker, & Alfano, 2010). The focus of these interactions should be books of literary quality, which are appropriate for the children's developmental levels, prepared with artistic sensitivity, and respond to the needs and interests of children (Çer, 2016a, 2016b; Dilid üzg ün, 2004; Neuman & Wright, 2007; Sawyer, 2012; Sever, 2008). In addition, metacognitive strategy should be used to improve reading comprehension skills (Eiles & Pinkley, 2006). Thus, during the reading process, the child should also be able to engage in planning (Dutta, 1995), self-monitoring (Schunk, 1997; Zimmerman, 1995), self-assessment (Benson, 2001), and self-regulation (Baker, 2002; Kuhn, 2000; O'Malley & Chamet, 1990).

By using metacognitive strategy while students' comprehension and intellectual skills are improved in pre-, during- and post-reading, they may become successful participants who are active in terms of attitude, knowledge, motivation, and

expectations (Alexander & Jetton, 2000). Furthermore, they may improve their vocabulary while reflecting emotions and thoughts efficiently (Boulware-Gooden, Carreker, Thornhill, & Joshi, 2007). All these skills reveal the significance of metacognitive strategy in reading comprehension (Kuhn, 2000). In this respect, the student is supposed to use metacognitive strategy, including all processes of reading, together with appropriate books for his developmental level, so that he can become a good reader. Thus, the child may improve his reading comprehension skills and express his emotions and thoughts more effectively.

While developing reading ability is important, social and cultural influences in literary works that might affect children's social, personal, and emotion development must be considered. In Turkey, the program that aims to improve reading and reading comprehension skills is carried out through a reading list called the 100 Basic Works prepared by the Ministry of Education (Ministry of Education, 2005). This list contains classical works from world literature, such as *The Count of Monte Cristo* by Edmondo de Amicis, *The Happy Prince* by Oscar Wilde, *Oliver Twist* by Charles Dickens, *Treasure Island* by Robert Louis Stevenson, *The Pinocchio* by Carlo Collodi, *My Sweet Orange Tree* by Jose Mauro de Vasconcelos, and those from the Turkish literature, such as *Yalnız Efe* by Omer Seyfettin, *Sevme Hikayeleri* by Sait Faik Abasıyanık, *Falaka* by Ahmet Rasim, and *Vatan Yahut Silistre* by Namık Kemal. However, some researchers suggest that the program presented with these books does not have the qualifications to help children improve their reading and reading comprehension skills (Dilidüzgün, 2006) on grounds that, rather than aiming to improve reading comprehension skills, the values, traditions, and customs belonging to Turkish culture and the passive child profile found in classics of world literature were prioritized in the preparation of this book list. Thus, children reading these books are expected to be made passive stereotyped nationalists (Çer, 2015). Moreover, translating formulaic expressions such as "Oh my God" "I hope that" and "for God's sake" in Carlo Collodi's *Pinocchio* and Johanna Spyri's *Heidi* as "oh my Allah" (for oh my God) "inshallah" (for I hope that) and "for Allah's acceptance" (for God's sake) also shows that this list prioritizes the Islamic formulaic expressions rather than corresponding to the Christian formulaic expressions (Kansu-Yetkiner, 2014).

Secondly, this book list cannot help children in Turkey developed the love for and habit of reading (Dilidüzgün, 2006; Children's Foundation, 2009), which is evidenced by the 18% reading ratings of the books in this list (Arı & Okur, 2013). Most characters in these books are also associated with passive, vague, non-dynamic, and limited roles. All these conditions may cause the child to avoid reading and negatively affect his reading comprehension (Aslan, 2010; Çer, 2015; Sever, 2006).

Thirdly, the Ministry of Education has made the reading of these books compulsory under the title of "reading hours" which were fixed at 30 minutes in primary schools in Turkey (Ministry of Education, 2008). In these reading classes with no reading strategies, students reluctantly engage in silent reading. Students can neither read enough nor find the strategies to improve reading comprehension in these hours when they are not employing metacognitive reading (Köksal & Değirmenci, 2015). Therefore, children's attitudes and reading comprehension more likely to not advance (İşcan, Arıkan, & Küçükaydın, 2013). Another figure also showed that Turkey was 37th in 2006, 41st in 2009, 42nd in 2014, and 41st in 2015 in reading comprehension clearly proves this to be true (OECD, 2006, 2010, 2014, 2016).

Finally, there has been a number of study on reading comprehension and metacognitive fields (Başaran, 2013; Bozkurt & Memiş, 2013; Çakıroğlu & Ataman, 2008; Mert, 2015). After an overview of this research, it was clear that the deficiency lies in the fact that the texts used with metacognitive strategy were either related to the 100 Basic Works or they were unsuitable texts found in course books. Reading classes should be conducted with books created by an artist, which arouse higher-order thinking, and in turn children can find their own developmental reality, instead of books that do not help improve reading comprehension skills. Hence, this article may also present significant contributions to the literature since its goal is to help discover the usefulness of metacognitive strategy and books of literary quality, which should be appropriate for the developmental levels of children. This can both help children improve their reading comprehension skills and become aware of how they will use books suitable for their own developmental levels. In addition, this article proposes that the concept "strategy" be included in the relationship between the child and the book as the "third dimension" in terms of quality and level, while helping improve reading comprehension skills.

1.1 Reading Comprehension and Metacognitive Strategy

Reading is composed of a series of complex actions, related to physiological, psychological, psycholinguistic, social, affective, cognitive, and metacognitive processes, in reconstructing foreknowledge, in analyzing the meaning of words, in monitoring the text, and in inferring the gist and meta structure of the text (Adam, 1990; Andorsen, 1994; Small & Arnone, 2011). Reading is based on coordinating the processing of various affective and cognitive components, such as seeing, attention, focusing, perception, recalling, building relations, analyzing, and interpretation. It is a sophisticated process with physiological, cognitive, and spiritual sides, such as grasping, analyzing, and evaluating emotions and thoughts within the text (Cain, Oakhill, & Bryant, 2004) and a cognitive activity based on receiving, conceptualizing, grasping, and interpreting the words via the sense organs. The main purpose of cognitive, metacognitive, and affective

activities yielded by reading is to make inferences from the text (Sweet & Snow, 2002).

The reader, by comprehending what he reads, interactively tries to reflect what is told in the text by associating his foreknowledge with it (Meneghetti, Carretti, & De Beni, 2006). Through this process, several cognitive, metacognitive, motivational, and affective relations appear between the reader and the text (Guthrie, Wigfield, Metsala, & Cox, 1999). While perception, comprehension, recalling, grasping, etc. appear in the cognitive aspect, planning, monitoring, analyzing, synthesizing, evaluating, questioning, self-regulation, inferring, estimating, etc. appear in the metacognitive sense (O'Malley & Chamot, 1990). Motivation is another important variable in conceptualizing the text because during the reading process, since there is no random inference from the text, all these actions are performed through purposeful and eager concentration on the text. In particular, intrinsic motivation, self-sufficiency, interest, purpose, and beliefs are important motivational variables in reading comprehension (Guthrie & Wigfield, 2000). Moreover, the reality (his nature, interest, need, perspective, language, and cognitive capacity) in which the reader resides while grasping the text, and the reflection of this reality in the text, may also help to shape the meaning (Çer, 2016b, 2016c; Sever, 2008).

Metacognitive strategy encompasses planning, self-monitoring, self-evaluating, and self-regulating processes in pre-, during-, and post-reading (Pressley & Afferbach, 1995; O'Malley & Chamot, 1990) and evolves from cognitive processes (Veeman, Van Hout-Wolters, & Afflerbach, 2006). This situation not only enhances the power of behavior and imagination of the child (Staton, 1984), but it also improves critical thinking (Davidson, 1994), learning about learning, becoming aware of cognitive processes (Anderson, 2002), and creative thinking (Wang, 2011). In addition, while the reading frequency of children with metacognitive strategy improves their reading skills (Leppanen, Aunola, & Nurmi, 2005), it also contributes to their comprehension levels, vocabulary, general knowledge levels, attitudes, and behaviors (Tan & Nicholson, 1998). In other words, as the reading skills of a student with metacognitive strategy improve, his metacognitive skills, including perception, grasping, sensing, discerning, synthesizing, analyzing, and evaluating; aesthetic and sensual skills, such as admiration and taste; and personal attitudes and skills, such as selection, decision making, self-perception, and self-sufficiency can also improve (Senechal, LeFevre, Hudson, & Lawson, 1996). Within reading culture, such a conception is required so that thinking, sensitive, and participating individuals can have a place in society. Thus, the reader will not only be satisfied merely with his reading comprehension and grasping skills but also improve his higher-order thinking skills.

1.2 Works of Children's Literature

One of the important variables determining comprehension skills is works of children's literature in which children interact with visual and linguistic texts (Saxby, 2007; Lukens, Smith, & Coffel, 2013). In other words, it has been observed that children who begin interacting with works of artistic quality develop comprehension and expression skills efficiently (Sever, 2008) because this process makes children contemplate how language works. In this respect, works of children's literature should exist in children's lives as an effective stimulus that is part of reality since the most competent usage of a language is found in texts of literary quality. Poems, novels, and short stories that make the power of intuition and sensation concrete reflect the beauty of expression of the society to which they belong. Thus, the child who interacts and communicates with the text can improve his cognitive, metacognitive, linguistic, affective, social, and personal skills by being inspired by the expressional attributes of his own language.

Children's literature of literary quality is required to make cognitive and metacognitive skills appear because one of the most important functions of works of children's literature is to support their cognitive, individual, and social development by helping them achieve higher-order thinking (Aslan, 2007b; Sawyer, 2012; Sever, 2008; Russell, 2009). Hence, the relationship the child establishes using a visual or a linguistic text is shaped in the cognitive and metacognitive processes such as perceiving, comprehending, grasping, discerning, comparing, associating, evaluating, and selecting. Thus, the child inclines to his metacognitive skills while he tries to extrapolate from works of literary quality. This inclination not only expands the child's intellectual limits but also advances his relationship with the book; however, children who have not encountered enough books of literary quality, which are supposed to be appropriate for their developmental level and who consequently have not advanced in reading skills through metacognitive strategy, were found to be inadequate at monitoring the text (Baker & Brown, 1984), analyzing the text (Goswami & Bryant, 1990), grasping the gist of the text (Stevens, 1988), defining the terms related to the text (Day & Zajakowski, 1991), intrinsically concentrating on the text (Lau & Chan, 2006), drawing conclusions (Long, Seely, Oppy, & Golding, 1996), recognizing problems during reading (Cheng, 1993), and implementing processes of metacognitive awareness (Dole, Brown, & Trathen, 1996). Thus, one of the most important reasons that children are unable to acquire the types of behavior at the top levels of cognitive processes is that they do not have qualified books and cannot read properly since they do not use the metacognitive strategy. Therefore, it is necessary to introduce books which are appropriate for children's developmental levels and then teach them how to use metacognitive strategy efficiently.

2. Method

2.1 Research Design

A quasi-experimental design with a pre-test and post-test control group was used in this study. In quasi-experimental design with a pre-test and post-test control group, besides the experimental group tested by the independent variable, there is an additional group not affected by the independent variable. This design includes an experimental and a control group but participants are not randomly chosen. If there is no significant difference between the pre-test scores of the groups, groups may be said to be relatively equivalent. Varying points of both groups from the pre-test to the post-test are compared in order to determine if there is a significant difference or not, while testing the respondents (Christensen, 2004). To sum up, this study examined whether there was a significant difference in the reading comprehension skill scores between the control group, which had studied by conventional teaching and reading of the 100 Basic Works, and the experimental group, which used metacognitive strategy with children's books of literary quality.

2.2 Participants

This study was performed on 65 students (34 males and 31 females) ranging in age from 10 to 12 in a private secondary school affiliated with the Ministry of Education in Amasya. Two fifth grade classes were randomly chosen. Because of the academic achievement scores of these students were similar to each other, one was assigned as the experimental, and the other as the control group. There were 30 students in the control group and 35 students in the experimental group.

2.3 Instruments

2.3.1 The Reading Comprehension Test

The reading comprehension test was prepared for the first time as a multiple-choice test. Although there are reading comprehension tests in international literature, these tests were not used in this study since their validity and reliability were not verified for the Turkish language. Similarly, since these tests do not reflect the content of the children's books to be used in this study, the researcher had to structure his own test. First, a multiple-choice test of 60 questions was prepared to assess reading comprehension skills. To ensure the content validity, the reading comprehension test was examined and proofread by three linguists and three child literature experts. Moreover, three developmental experts were consulted to ensure the test items were appropriate to the linguistic and cognitive level of the children. After the expert review, items which were not appropriate for the child's developmental level, not linguistically appropriate, and did not reflect the content of the books were all removed. As a result of these procedures, the test consisting of 46 items and organized for trial practicing was applied to 161 students studying in a secondary school which was not included in the research group. After the practice, item discrimination, item difficulty of all items as well as reliability of the reading comprehension test were calculated. Four items, for which the indices of item discrimination were below .30, were removed from the test. As a result, a reading comprehension test of 42 items was obtained. After item analysis, the coefficient of reliability of the reading comprehension test obtained by KR-20 formula was found to be .91.

Second, the reading tests, whose validity and reliability were confirmed, were given to the students in the control and experimental group, who were the focus of the research. This test was applied to the students in both groups during the pre-test and the post-test. Throughout the 8-week period, students were expected to respond to all the questions in the test considering books of literary quality that they read previously. Correct responses were given 1 point and wrong responses were given 0.

2.3.2 Structured Instruction

In this study, the experimental and the control group were given two different kinds of instruction. First, the students in the experimental group were instructed about how they were going to use metacognitive strategy in books of literary quality so that they could improve their reading comprehension. This instruction consisted of three parts explaining what to do before, during, and after the reading activity.

Before the reading process, during the planning process of metacognitive strategy, a technique called "Pre-Reading Plan" was used. This technique consists of teacher's questions: (a) The teacher asks students what they know about the text that they are going to read; (b) The teacher wants to check students' foreknowledge by asking them: "Why do you think this way?"; and (c) The teacher then refreshes students' memories by asking them to answer the question: "Now, we have thought over it, do you want to share any kind of information before we start to read?" (Manzo & Manzo, 1995). This technique was used and enriched with other types of questions that would contribute to the plan: (a) What does the task consist of?, (b) What is its aim?, (c) What kind of information and strategies do I have to have?, and (d) How long will it take and what am I going to make use of (Schraw, 1998).

During the reading process, students were instructed in self-monitoring, which regulates reading comprehension. This

instruction consisted of 4 main questions: (a) Do I clearly grasp what I am reading?, (b) Does the task mean anything to me?, (c) Am I achieving my goals?, and (d) Do I have to change certain things? (Schraw, 1998). The main goal of these questions is to help students regulate their reading comprehension levels during the reading process. That is to say, during the reading process, students are known to be active thanks to self-monitoring which (a) raises selective attention, (b) helps students estimate how efficient a performance was, and (c) helps students see how useful a learning strategy was (Zimmerman, 1995).

After the reading process, students were asked to answer these questions: (a) What procedures did you follow for completing this task?, (b) What problems did you have during the process?, (c) How can you associate this activity with your prior knowledge?, (d) What was most difficult for you?, (e) What makes you feel confused?, (f) Did you achieve your goal?, (g) What went right?, (h) What went wrong?, and (i) Will you do better next time (Anderson, 2002; Schraw, 1998). Thus, the goal was to improve students' autonomy and self-regulation, which appeared after the reading process thanks to metacognitive strategy, their motivation, self-esteem, self-confidence, and better thinking and learning skills (Ekbatami, 2000; Statman, 1993).

Second, students in the control group were instructed in reading and reading comprehension using the texts found in the 100 Basic Works, which are used in conventional teaching within the Turkish teaching program. During this instruction, no strategies were applied to the students. Only questions concerning the books read, such as "What did you infer from the book?" "What could be the main theme of the book?" "What is the main character of the book doing?", were used.

2.3.3 Works of Children's Literature

In this study, students in the experimental group were given children's books of literary quality appropriate for their developmental levels: Long Live the Brotherhood of the Letter Ç (Behi ç Ak), Pippi Longstocking (Astrid Lindgren), The Story of a Seagull and The Cat Who Taught Her To Fly (Luis Sepulveda), Whale and Mandarin (Fazıl Hüsnü Dağlarca), and As Evliya Çelebi (Arslan Sayman). These books were given to the children because they are appropriate in terms of design, content, and didactic elements to the children's linguistic and cognitive levels (Children's and Youth Literature Practice and Research Center, 2016). In addition, these books were chosen both by children's literature criteria and by the remarks of the developmental psychologist. Furthermore, the fact that these books were given national and global awards proves their qualifications. However, students in the control group were given five books, Perili Köşk (Ömer Seyfettin), Yer Altında Bir Şehir (Kemalettin Tuğcu), Pollyanna (Eleanor H. Porter), Gulliver's Travels (Jonathan Swift), and Falaka (Ahmet Rasim), from the 100 Basic Works approved by the Ministry of Education (Ministry of Education, 2005).

2.4 Data Analysis

All statistical analyses were performed with Statistical Package for Social Sciences (SPSS), Version 23. A series of independent sample t-test was used to determine whether there was a significant difference between the results of the pre-test and the post-test of the experimental and the control group. In addition, the analysis of covariance (one way Ancova) was used to determine the effect of metacognitive strategy in improving reading comprehension skills by analyzing whether there was a significant difference between the post-intervention scores of the experimental and the control group controlling for their pre-test scores (Punch, 2005).

3. Results

A series of independent sample t-tests performed to ascertain if there was a significant difference between the experimental and control group in reading comprehension scores before and after intervention. Table 1 reports the results of independent sample t-tests results as well as associated effect sizes as measured by Cohen's *d*.

Table 1. Pre-post results for experimental and control group

Variable	Exper.		Control		t_{df}	p	Cohen's d
	M	SD	M	SD			
Pre test reading test	7.56	2.67	7.20	1.93	.87 ₍₆₃₎	.389	.15
Post-test reading test	14.25	1.95	8.30	1.88	13.89 ₍₆₃₎	.001*	3.10

$p < .001^*$

As seen in Table 1, although, there was no significant difference between the experimental and the control group in pre-test reading comprehension scores ($t(63)$: .87, Cohen's d : .15, $p > .05$), there was a significant difference between the experimental and the control group in post-test reading comprehension scores ($t(63)$: 13.89, Cohen's d : 3.10, $p < .001$). That is, students in experimental group were significantly higher reading comprehension scores than students in control group. Because, although it is not significant, students in experimental group were slightly higher reading

comprehension scores than students in control group. Thus, we also conducted a one-way ANCOVA to determine whether post-test scores significantly differ as a function of group membership (experimental or control) controlling for pre-test reading scores. The results presented in Table 2.

Table 2. One Way Ancova Results

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	643.35*	2	321.675	155.124	.000*
Intercept	391.19	1	391.19	155.829	.000*
Pre-test	67.35	1	67.35	29.101	.000*
Experimental Group	584.31	1	584.31	169.85	.000*
Error	216.72	63	3.44		

$p < .001$ *

As seen in Table 2, The One Way Ancova analysis also revealed a significant difference between the pre-test and the post-test in the experimental group that is, using metacognitive strategy in books of literary quality improved the reading comprehension skills of the students in the experimental group when compared to the control group, in which traditional methods were used to attempt to improve reading and comprehension skills.

4. Discussion

The results of this study found no significant difference between the experimental and the control group for the pre-test in terms of reading comprehension. However, after the post-test, there was a significant improvement in the reading comprehension of the students reading texts of literary quality by using metacognitive strategy and the students reading five books from the 100 Basic Works in the conventional way. This clearly shows that students should use metacognitive strategy along with books of literary quality to improve reading comprehension skills. Thus, children can both ameliorate their reading skills and become aware of how they can promote comprehension by reading books of literary quality using metacognitive strategy, which fulfills the goal of reading by learning to control the text, i.e., becoming aware of it (Kuhn, 2000).

In this study, it was clear that types of metacognitive awareness such as planning, self-monitoring, self-regulation, and self-evaluation did not emerge in the students attempting to improving reading and reading comprehension by conventional educational means. There are several reasons for this. First, students try to explain the books they read, deprived of any kinds of strategies. This is known to impel students to the processes of lower-order thinking (Facione, 1998). Thus, students have so far been forced to present their opinions about the content of books through a limited frame. Second, these books in the 100 Basic Works continuously prioritize the traditions, customs, and Islamic values of the Turkish culture (Çer, 2015; Kansu-Yetkiner, 2014). Therefore, they were not able to approach the facts in the books critically, creatively, and analytically since their perspectives were stereotyped in an extremely nationalist and Islamic way. This made students passive participants within the reading process. Third, associating characters in these books with non-dynamic, vague, passive, and limited roles (Aslan, 2010; Sever, 2006) caused students in this age range, who are curious, exploring, adventurous, imaginative, playful, creative, sincere, rejecting of advice and command, and excited, to reluctantly read in an affective sense. Therefore, this situation also negatively affected their reading comprehension. The fact that Turkey, in reading comprehension skills was ranked 37th in 2006, 41st in 2009, 42nd 2014, and 41st in 2015 (OECD, 2006, 2010, 2014, 2016) clearly illustrates the negative results of this process because, since 2005, every student has been obliged to read the books in the 100 Basic Works in all primary schools in Turkey (Ministry of Education, 2005).

In the experimental group, students both advanced in reading comprehension skills, such as planning, monitoring, self-regulation, and self-evaluation, through metacognitive strategy and in higher-order thinking skills thanks to children's books. In other words, students using metacognitive strategy in the experimental group rose from comprehension and grasping skills up to the levels of criticizing what they read, evaluating, concluding, estimating, comparing, setting cause and effect relations, and generating original opinions. Such advances are known to contribute to students' improved text comprehension (Lewis & Smith, 1993). In other words, throughout this process of education, in which students took on higher-order thinking responsibilities, the quality of their relationship with books was more positive and varied as well. Thanks to metacognitive strategy, over an 8-week period, students became qualified readers with behaviors such as questioning, correcting, and note taking, rather just reading in order to finish the book.

This study propounded that children's literature of literary quality should be read through metacognitive strategy. It was found that students had a better comprehension of books throughout the process of reading a qualified book because metacognitive strategy may make the child more active, self-confident, successful, and a participant, taking responsibility for his own planning, self-monitoring, self-evaluation, and self-regulation processes (Baker, 2002). Thus, students can express their emotions and opinions efficiently by increasing their comprehension level. This also

contributes to the child's social and personal development (Efklides, 2011) because when students can present and understand what they read more efficiently, they become more sociable, self-confident, and successful (Lau & Chan, 2006).

Above all, the student must first read a book in order to comprehend it. Accomplishing this in a comprehensive manner requires the harmony of motivational, affective, environmental, and physiological variables (Cain, Oakhill, & Bryant, 2004; Small & Arnone, 2011). All these variables were found to make positive contributions to reading comprehension in this study. In other words, students affectively approached books with positive feelings while they were motivated to purposefully and eagerly concentrate on the meaning of the text. In terms of the environment, they gained their inner motivation by keeping away from all the variables that would remove them from the text. Thus, the harmony of the variables that provide comprehension could be developed through metacognitive strategy.

This study also revealed the uselessness of conventional reading classes. Conducting reading classes with no strategies for reading the books on the list of the 100 Basic Works cannot improve reading performance. In these classes, since teachers use the question-answer technique, which is deprived of higher-order thinking activity, asking monotonous questions such as "What did you understand? What do you think the main theme of the book could be? What is the main character of the book?" (McCarthy & Anderson, 2000), the student cannot understand the book and cannot reflect his emotions and opinions properly because according to critical thinking, there is not only one truth but many (Facione, 1998). Thus, conventional reading classes not only make the child passive, but also inhibit him from building a relationship with the book. Therefore, reading classes should be run using metacognitive strategy. In this way, the child could take greater advantage of the books read and perceive them as multi-dimensional.

This study clearly shows the deficiency of not using texts of literary quality in previous studies on metacognitive strategy that aimed to improve reading comprehension skills (Başaran, 2013; Bozkurt & Memiş, 2013; Çakıroğlu & Ataman, 2008; Eiles & Pinkley, 2006; Guthrie et al., 1999; Houtveen & Grift, 2007; Mert, 2015). The fact that the correlation between books of literary quality that are appropriate for the developmental level of children and metacognitive strategy is significant and it shows the importance of using metacognitive strategy with qualified texts in improving reading comprehension.

The first limitation of this study is that it is uncertain how long the metacognitive skills of students last; therefore, additional monitoring experimental studies should be conducted. Second, this research was performed on only 5th grade students. For this reason, further studies on different grades should be performed to determine the efficacy of the strategy. Lastly, students only engaged in reading and reading comprehension activities through five works from the 100 Basic Works. The remaining 100 Basic Works could be examined in prospective studies. At the same time, future studies should also investigate different psychological traits, such as attachment styles (Gençoğlu, Topkaya, Şahin, & Kaya, 2016), as predictors of outcome at the end of study. Mental health problems affect a considerable number of people in Turkey (Topkaya, 2014a, 2014b, 2015a, 2015b; Topkaya & Meydan, 2013). Thus, improving mental health of these individuals is a key concern for most mental health professionals. One viable way to improve mental health may be reading quality books for children and adolescents. However, this study only focused on students in secondary school and did not exam their current psychological symptoms. Future studies may examine the effects of reading quality books.

Consequently, students were observed to comprehend the text better and higher-order thinking processes emerged in students through metacognitive strategy. Students operated higher-order processes, such as setting cause and effect relationships, comparing, associating, inferring, self-evaluation, and self-regulation, rather than giving short "yes/no" answers for the questions about books of literary quality. Moreover, in the analysis and interpretation of the books they read, they found the relationships among the themes, characters, matters, and conflicts in the books in terms of similarities and differences thanks to reading intertextually. Thus, the students become generating readers rather than passive ones, giving students a participatory role in analyzing the meaning of the text.

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E.Ş participated in designing the data collection instruments, performed data collection and analyses, drafted the manuscript. E.Ç and E.Ş performed data collection, participated in designing the instruments, reviewed and revised the manuscript. E.Ç conceptualized and designed the study, designed the data collection instruments, coordinated and supervised data collection, critically reviewed the manuscript. All authors approved the final manuscript as submitted.

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