



The Relationship between High School Students' Metacognitive Awareness of Reading Strategies and English Self-Efficacy Beliefs[#]

Sevgi Bektaş Bedir^{1,a,*}, Fevzi Dursun^{2,b}

¹Ministry of National Education, Tokat/Turkey

²Gaziosmanpaşa University, Faculty of Educational Science, Department of Curriculum and Instruction, Tokat/Turkey

*Corresponding author

Research Article

Acknowledgment

[#]This research was presented as an oral presentation at the 27th International Conference on Educational Sciences (2018, April).

History

Received: 08/08/2021

Accepted: 11/01/2022



This paper was checked for plagiarism using iThenticate during the preview process and before publication.

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ABSTRACT

This study aimed to determine the relationship between high school students' metacognitive awareness of English reading strategies and their self-efficacy beliefs about English by using a correlational survey model. The study group consisted of 586 high school students from high schools in a county located in the Central Black Sea region in the 2017-2018 academic year. According to the results of the study, the descriptive values of the sub-dimensions of the Metacognitive Awareness of Reading Strategies Inventory, the students used problem-solving strategies most, which was followed by global reading strategies and support reading strategies respectively. High school students' metacognitive awareness of reading strategies level indicated a significant difference in gender and grade variables. The metacognitive awareness levels of high school students' reading strategies did not show a significant difference according to the age variable. The descriptive values of the sub-dimensions of the English Self-Efficacy Belief Scale, the highest self-efficacy beliefs of the students were about reading skills, which was followed by listening, writing, and speaking skills, respectively. The English self-efficacy beliefs of high school students in the study, showed a significant difference in all sub-dimensions according to gender and class variables. While high school students' self-efficacy beliefs about English showed a significant difference in reading, writing and speaking sub-dimensions according to the age variable, it did not show a significant difference in listening sub-dimension. There was a moderate, significant, and positive correlation between high school students' metacognitive awareness of English reading strategies and self-efficacy beliefs.

Keywords: Foreign language teaching, Metacognition, Metacognitive awareness, Self-efficacy, High school students

Lise Öğrencilerinin Okuma Stratejileri Üstbilişsel Farkındalıkları ile İngilizce Öz Yeterlik İnançları Arasındaki İlişki

Bilgi

[#]Bu araştırma, 27. Uluslararası Eğitim Bilimleri Konferansı'nda (2018, Nisan) sözlü sunum olarak sunulmuştur.

*Sorumlu yazar

Süreç

Geliş: 08/08/2021

Kabul: 11/01/2022

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Öz

Bu çalışmada lise öğrencilerinin okuma stratejileri üstbilişsel farkındalıkları ve İngilizce ile ilgili öz yeterliklerini farklı değişkenler açısından incelemek amaçlanmıştır. Araştırmanın çalışma grubunu 2017-2018 eğitim öğretim yılında Orta Karadeniz bölgesindeki yer alan bir ilçedeki 586 lise öğrencisi oluşturmaktadır. Bu araştırma ilişkisel tarama modelinde yürütülmüştür. Araştırmanın sonuçlarına göre Okuma Stratejileri Üstbilişsel Farkındalık Envanterinin alt boyutlarının betimsel değerlerine bakıldığında öğrencilerin en çok problem çözme stratejilerini, daha sonra genel okuma stratejilerini ve en son olarak da okuma stratejilerini destekleme boyutunu kullandıkları ortaya çıkmıştır. Lise öğrencilerinin okuma stratejileri üstbilişsel farkındalık seviyeleri cinsiyet ve sınıf değişkenlerine göre anlamlı bir fark gösterirken, yaş değişkenine göre anlamlı bir fark göstermemektedir. İngilizce ile ilgili Öz Yeterlik İnanç Ölçeği alt boyutlarının betimsel değerlerine bakıldığında öğrenciler en çok okuma becerisinde, daha sonra dinleme ve yazma becerilerinde ve en son olarak da konuşma becerisinde öz yeterlik inancına sahip çıkmışlardır. Lise öğrencilerinin öz yeterlik inançları tüm alt boyutlarda cinsiyet ve sınıf değişkenlerine göre anlamlı bir farklılık göstermektedir. Lise öğrencilerinin İngilizce ile ilgili öz yeterlik inançları yaş değişkenine göre okuma, yazma ve konuşma alt boyutlarında anlamlı bir fark gösteriyorken dinleme alt boyutlarında anlamlı bir fark göstermemektedir. Lise öğrencilerinin İngilizce dersi okuma stratejileri üstbilişsel farkındalık seviyeleri ile öz yeterlik inançları arasında pozitif yönde orta düzeyde anlamlı bir ilişki ortaya çıkmıştır.

Anahtar Kelimeler: Yabancı dil öğretimi, Üstbiliş, Üstbilişsel farkındalık, Öz yeterlik, Lise öğrencileri

^a sevgibektasbedir@gmail.com

^b orcid.org/0000-0003-3794-9247

^b fevzidursun@gmail.com

^b orcid.org/0000-0003-2103-8940

How to Cite: Bektaş Bedir S, Dursun F (2022) The relationship between high school students' metacognitive awareness of reading strategies and english self-efficacy beliefs, Cumhuriyet International Journal of Education, 11(1): 155-163

Introduction

The Relationship between High School Students' Metacognitive Awareness of Reading Strategies and English Self-Efficacy Beliefs

Despite the resources and labor spent in foreign language education and changes made in education programs, it can be said that the success of foreign language teaching in Turkey is not yet at a desired level (Coşkun Demirpolat, 2015). The difficulties experienced in foreign language education in Turkey stem from basic factors such as language policies and approaches to language teaching, as well as crowded classrooms, inadequate physical conditions, and quandaries in qualified teacher training (Haznedar, 2010). The importance given by the Ministry of National Education to foreign language education is increasing day by day and depending on this situation, changes are made in the education plans (Zengin & Radmard, 2019). According to the study result of Maviş Sevim & Dursun (2021), teachers think that one of the main reasons why students cannot reach the goals in language teaching is some prejudices against foreign language learning. This result supports Başbay & Gözüm's (2019) idea that one of the variables that make language teaching difficult is the individual differences of the learner. One of the individual differences that affect foreign language education is self-efficacy belief (Rahman, 2020). Cheng (2004) associated self-efficacy with foreign language learning anxiety. According to Bandura (1989), self-efficacy is individuals' beliefs in themselves about their capabilities to control the factors affecting their lives. Therefore, individuals with high self-efficacy are expected to overcome the difficulties they encounter more easily. Pajares (1997) claims that if one feels inadequate in a subject, he believes that he will fail and this belief leads to anxiety. Self-efficacy belief affects how individuals feel, think, and behave (Bandura, 1994). When individuals have low self-confidence in accomplishing a task, they feel afraid and tense. Conversely, if individuals are confident in coping with a situation, they will be more involved in the events and overcome the difficulties by using different strategies when they consider them as a problem. Individuals who are aware of the potential for success despite difficulties face difficulties and make more efforts to reach their goals (Adunyarittigun, 2015). While success provides a significant increase in the self-efficacy of the individual, failure weakens the self-efficacy. In particular, the success achieved as a result of a serious effort strengthens the belief that the individual has the capacity to succeed, and this enables them to perform better and have new successes in the future (Bandura, 1997). However, individuals with low self-efficacy focus on their personal weaknesses, so that they fail to reach success (Bandura, 1994). It can be said that high self-efficacy also increases the degree of effort, thus enabling individuals to take more solid steps to reach their goals.

It is believed that foreign language learning anxiety and self-efficacy belief are related to metacognitive

awareness which is another individual difference (Doğan, 2016). Flavell (1976) defined metacognition as the active monitoring and organization of processes related to cognitive knowledge or data, which generally serves a specific tangible purpose. He classified metacognition into two basic components: cognitive knowledge and cognitive monitoring. He defined the former as introspection necessary for the individual to carry out their own cognitive processes and the latter as a dynamic and deliberate process that includes regulation of cognitive activities, such as planning, managing, and evaluating practices (Lizarraga & Sanz, 2013). Flavell (1979) addressed the relationships between four classes of phenomena in the monitoring of cognitive processes. These include metacognitive goals, metacognitive knowledge, metacognitive experiences, and metacognitive activities. Metacognitive goals include the objectives of cognitive processing. Metacognitive knowledge is related to one's world knowledge. Metacognitive experiences include conscious mental operations and any accompanying cognitive and affective experiences. Metacognitive activities include cognition and the behaviors used to perform them. Metacognitive awareness, on the other hand, reflects people's awareness of their self-understanding or metacognitive processes and capabilities (Hermita & Thamrin, 2015). According to Senemoğlu (2005), metacognitive awareness is basically the awareness of an individual's own knowledge and how and when to use it. According to Jiang & Gao (2016), metacognition has great importance in learning and teaching while carrying out educational research and applications. Although there are various approaches to metacognitive teaching, the most effective one provides students with both metacognitive knowledge such as cognitive processes and strategies and the opportunity to develop their metacognitive regulation skills. Solely transferring knowledge without experience or the opposite approach will not be enough to develop metacognitive control skills (Huang, 2011). Teachers can guide students to provide this experience. According to Pritchard (2009), teachers encourage students' metacognitive effectiveness by supporting awareness of their own learning and thinking processes. A successful metacognition teaching gives priority to planning, strategy knowledge, and skills to implement strategies in suitable conditions in students (Wilson & Bai, 2010). Using metacognitive strategies motivates people to handle problems profoundly, perform better, and enhance self-efficacy (Mohamed, Mohamed & Abdeen, 2020).

Individuals with metacognitive awareness also develop self-efficacy perceptions in understanding what they are reading (Bağcı & Ünveren, 2020). Some studies in the national and international literature support this view at different learning levels and in different branches (Aydın, 2015; Genç, Kuluşaklı & Aydın, 2016; Ghasemi, Ahmadian, Yazdani & Amerian, 2020; Ghonsooly, Khajavy & Mahjoobi, 2014; Hermita & Thamrin, 2015; Kitikandan & Sasimonton, 2017; Koç & Arslan, 2017; Mohamed,

Mohamed, & Abdeen,2020). Koç and Arslan (2017) found a positive and significant relationship between self-efficacy and the sub-dimensions of metacognitive awareness of reading strategies in secondary school students. Sağırılı, Baş, & Bekdemir (2020) found a positive and weak relationship between academic achievement and metacognitive awareness in their study with prospective teachers. Furthermore, Naseri & Zaferanieh (2012) revealed a strong positive relationship between reading self-efficacy beliefs and reading comprehension, as well as between reading self-efficacy beliefs and the use of reading strategies. In this study, it was aimed to examine high school students' metacognitive awareness of reading strategies and their self-efficacy beliefs about English in terms of several variables. In line with this main purpose, this study sought to answer the following research questions:

- Do high school students' metacognitive awareness of reading strategies differ according to age, gender, and grade?
- Do high school students' self-efficacy beliefs about English lessons differ according to age, gender, and grade?
- Is there a relationship between high school students' metacognitive awareness of reading strategies and their self-efficacy beliefs about English?

Method

Model of the Study

This study, which aimed to determine the relationship between high school students' metacognitive awareness of English reading strategies and their self-efficacy beliefs about English, used a correlational survey model. This model is usually preferred for research conducted to describe a past or present situation as it was or is (Karasar, 1999).

Study Group

The study group consisted of 586 high school students from high schools affiliated to the Ministry of National Education in a county located in the Central Black Sea region in the 2017-2018 academic year. Table 1 presents information and interpretations about the participants' gender, age, and grade.

As seen in Table 1, 329 (56.1%) of the participants (586 students) were female and 257 (43.9%) were male. The students participating in the study were in different age groups. According to the age groups of the 586 students in the study, 59 were 14 years old, 139 were 15 years old, 167 were 16 years old, 170 were 17 years old, and 51 were 18 years old. Of the students, 145 were 9th-graders, 152 were 10th-graders, 154 were 11th-graders, and 136 were 12th-graders.

Data Collection Tools

One of the data collection tools used in this study was the Metacognitive Awareness of Reading Strategies Inventory, which was developed by Mokhtari and

Reichard (2002). This scale consists of three sub-dimensions: Global Reading Strategies (I have a purpose in mind when I am reading; I use context clues to help me understand better what I'm reading, etc.); Problem-Solving Strategies (I adapt my reading speed to what I'm reading; When text becomes difficult, I pay more attention to what I'm reading, etc.); and Support Reading Strategies (I write summaries to think about key ideas in the text; I discuss what I am reading with others to check my understanding, etc.). The scale was adapted to Turkish by Öztürk (2012). The correlation between the scores obtained from the Turkish and English forms of the scale was 0.96. Cronbach's alpha reliability coefficients for the overall scale were 0.89 for the original form of the scale and 0.93 for the Turkish version. In this study, Cronbach's alpha value for the overall scale was found as 0.80. Another data collection tool employed in the study was the English Self-Efficacy Belief Scale, which was developed by Hancı Yanar & Bümen (2012) to help determine high school students' self-efficacy beliefs about English. The validity and reliability studies of this scale were conducted. Factor loads of 34 items on the scale ranged from 0.42 to 0.69. Cronbach's alpha reliability coefficient of the scale, which measures self-efficacy in English reading, writing, listening and speaking skills, was 0.97. In this study, Cronbach's alpha value of the overall scale was found as 0.79.

Table 1. Demographic characteristics of the study group

Features	f (frequency)	% Percentage
Gender		
Female	329	56.1
Male	257	43.9
Age		
14	59	10.1
15	139	23.7
16	167	28.5
17	170	29.0
18	51	8.7
Grade		
9	145	24.7
10	152	25.9
11	154	26.7
12	136	23.2
Total	586	100

Data Analysis

The answers given to the questionnaires by the high school students participating in the study were grouped under gender, age, grade, and personal information titles, and the necessary descriptive statistics were presented by using frequency (f) and percentage (%) values. Afterward, mean scores and standard deviation values were calculated by summing up the responses given to the Metacognitive Awareness of Reading Strategies Inventory and the English Self-Efficacy Belief Scale. While evaluating the normality distribution of the data, mode, arithmetic mean, kurtosis and skewness values, and the histogram graph were taken into account. The results indicated that

all variables and values related to data collection tools showed a normal distribution. Independent groups t-test, one of the parametric tests, and one-way analysis of variance (ANOVA) were used to analyze the data. The relationship between the Metacognitive Awareness of Reading Strategies Inventory and the English Self-Efficacy Belief Scale was analyzed using Pearson’s correlation.

Findings

The data obtained in this section were addressed in line with the research questions of the research.

Findings regarding the first research question

To answer the question, "Do high school students’ metacognitive awareness of reading strategies differ according to age, gender, and grade?", which was the first research question of the study, descriptive statistics related to the Metacognitive Awareness of Reading Strategies Inventory were calculated. Accordingly, it was found that the students showed the highest awareness towards the “I skim the text to see what it’s about before reading it” item (x=3.59) and the least towards the “I use

formatting aids like boldface type and italics to identify key information” item (x=2.40).

As seen in Table 2 regarding the descriptive values of the sub-dimensions of the Metacognitive Awareness of Reading Strategies Inventory, the students used problem-solving strategies most (x= 3.43), which was followed by global reading strategies (x=3.18) and support reading strategies (x=3.14), respectively.

As seen in Table 3, metacognitive awareness of reading strategies level of high school students participating in the study showed a significant difference by gender regarding support reading strategies [t(584) = 6.69 P< 0.05], problem-solving strategies [t(584) = 6.01, P<0.05], and global reading strategies [t(584) = 4.24, P<0.05]. The metacognitive awareness of the female students (\bar{X} = 3.34; \bar{X} = 3.62; \bar{X} =3.31) was higher in all sub-dimensions than those of the male students (\bar{X} = 2.89; \bar{X} = 3.20; \bar{X} = 3.01).

As seen in Table 4, the level of high school students’ metacognitive awareness of reading strategies did not show a significant difference by age regarding support reading strategies [F (4.581) = 1.63, P>0.05], problem-solving strategies [F (4.581) = .51, P>0.05], and global reading strategies [F (4.581) = .60, P>0.05].

Table 2. Descriptive statistics about the sub-dimensions of the Metacognitive Awareness of Reading Strategies Inventory

Metacognitive Awareness of Reading Strategies	N	\bar{x}	ss
Support Reading Strategies	586	3.14	.83
Problem-Solving Strategies	586	3.43	.87
Global Reading Strategies	586	3.18	.83

Table 3. T-test results of high school students' metacognitive awareness of reading strategies level by gender

The levels of metacognitive awareness of reading strategies	Gender	N	\bar{x}	Ss	t	sd	p
Support Reading Strategies	Female	329	3.34	.75	6.69	584	.046
	Male	257	2.89	.86			
Problem-Solving Strategies	Female	329	3.62	.79	6.01	584	.007
	Male	257	3.20	.91			
Global Reading Strategies	Female	329	3.31	.76	4.24	584	.007
	Male	257	3.01	.88			

Table 4. ANOVA results of high school students' metacognitive awareness of reading strategies level by age

Metacognitive awareness	Age	N	\bar{x}	Sd	Source of the variance	KT	Sd	KO	F	P	Fr
Support Reading Strategies	14	59	3.31	.65	Inter-group	4.53	4	1.13	1.63	.164	
	15	139	3.16	.89	Intra-group	402.74	581	.69			
	16	167	3.18	.86	Total	407.27	585				
	17	170	3.09	.81							
	18	51	2.94	.83							
Problem-Solving Strategies	14	59	3.46	.59	Inter-group	1.56	4	.390	.51	.729	
	15	139	3.46	139	Intra-group	445.02	581	.766			
	16	167	3.47	167	Total	446.58	585				
	17	170	3.41	170							
	18	51	3.29	51							
Global Reading Strategies	14	59	3.22	.72	Inter-group	1.66	4	.416	.60	.660	
	15	139	3.14	.86	Intra-group	400.16	581	.689			
	16	167	3.25	.85	Total	401.82	585				
	17	170	3.15	.79							
	18	51	3.10	.89							

Table 5. ANOVA results of high school students' metacognitive awareness of reading strategies level by grade

Metacognitive awareness	Grade	N	\bar{x}	sd	Source of the variance	KT	sd	KO	F	P	Fr
Support Reading Strategies	9	145	3.21	.81	Inter-group	10.46	3	3.488	5.11	.002	9-12
	10	152	3.13	.83	Intra-group	396.81	582	.68			11-12
	11	153	3.28	.83	Total	407.27	585				
	12	136	2.91	.82							
Problem-Solving Strategies	9	145	3.44	.81	Inter-group	4.94	3	1.65	2.17	.090	
	10	152	3.44	.90	Intra-group	441.64	582	.76			
	11	153	3.55	.85	Total	446.58	585				
	12	136	3.29	.92							
Global Reading Strategies	9	145	3.18	.83	Inter-group	7.27	3	2.42	3.57	.014	11-12
	10	152	3.19	.84	Intra-group	394.55	582	.68			
	11	153	3.32	.77	Total	401.82	585				
	12	136	3.01	.84							

Table 6. Descriptive statistics about the sub-dimensions of English self-efficacy beliefs scale

Self-efficacy beliefs about English	N	\bar{x}	Sd
Reading	586	3.09	.89
Writing	586	2.74	.82
Listening	586	2.91	.88
Speaking	586	2.65	.96

Table 7. T-test results of the high school students' self-efficacy beliefs about English by gender

Self-efficacy beliefs about English	Gender	N	\bar{x}	Sd	t	Sd	p
Reading	Female	329	3.24	.83	4.77	584	.000
	Male	257	2.90	.92			
Writing	Female	329	2.87	.78	4.44	584	.000
	Male	257	2.57	.84			
Listening	Female	329	3.05	.81	4.44	584	.000
	Male	257	2.73	.92			
Speaking	Female	329	2.74	.94	2.50	584	.013
	Male	257	2.54	.98			

As seen in Table 5, the level of high school students' metacognitive awareness of reading strategies indicated a significant difference by grade regarding support reading strategies [F (3.582)= 5.11, P<0.05], problem-solving strategies [F (3.582)= 2.17, P<0.05], and global reading strategies [F (3.582) = 3.57, P<0.05]. An inter-group comparison was made to determine the groups causing this variance. Since the variances of the groups were homogeneous, the source of the significant difference was examined by using the "Tukey" test, and the multiple comparisons indicated that there was a significant difference between the mean scores of the 9th and 12th grades and between the 11th and 12th grades. Accordingly, the scores of the 9th and 11th grades were found higher.

Findings regarding the second research question

To answer the question, "Do high school students' self-efficacy beliefs about English differ according to age, gender, and grade?", which is the second research question of the study, descriptive statistics related to the English Self-Efficacy Belief Scale were calculated.

Accordingly, it was found that while the students had the highest self-efficacy beliefs about the "I can imagine what I am reading" item, they had the least self-efficacy beliefs about the "I can write a good paragraph or essay" item (\bar{x} = 2.24).

As seen in Table 6 regarding the descriptive values of the sub-dimensions of the English Self-Efficacy Belief Scale, the highest self-efficacy beliefs of the students were about reading skills (\bar{x} = 3.09), which was followed by listening (\bar{x} = 2.91), writing (\bar{x} = 2.74), and speaking skills (\bar{x} = 2.65), respectively.

As seen in Table 7, the self-efficacy beliefs of high school students participating in the study about English indicated a significant difference by gender regarding reading skills [t(584) = 4.77, P<0.05], writing skills [t(584) = 4.44, P< 0.05], listening skill [t(584) = 4.44, P<0.05], and speaking skills [t(584) = 2.50, P< 0.05]. It was found that the scores of female students were higher.

As seen in Table 8 regarding the English self-efficacy beliefs of high school students in the study, a significant difference was found according to age regarding reading skills [F(4.581) = 7.07, P<0.05], writing skills [F(4.581) = 3.82, P<0.05], and speaking skills [F(4.581) = 2.50, P<0.05].

Table 8. ANOVA results of the high school students' self-efficacy beliefs about English by age

SEB	Age	N	\bar{x}	Sd	SV	KT	Sd	KO	F	P	Fr
Reading	14	59	3.22	.87	Inter-group	21.56	4	5.39	7.07	.000	14-18 15-17-18 16-18
	15	139	3.30	.83	Intra-group	442.72	581	.76			
	16	167	3.15	.88							
	17	170	2.94	.86	Total	464.28	585				
	18	51	2.66	.98							
Writing	14	59	2.88	.82	Inter-group	10.15	4	2.5	3.82	.000	15-18
	15	139	2.89	.77	Intra-group	385.75	581	.66			
	16	167	2.75	.84							
	17	170	2.63	.81	Total	395.90	585				
	18	51	2.46	.88							
Listening	14	59	2.95	.90	Inter-group	4.84	4	1.21	1.58	.172	
	15	139	2.98	.85	Intra-group	444.68	581	.76			
	16	167	2.95	.92							
	17	170	2.88	.82	Total	449.53	585				
	18	51	2.64	.93							
Speaking	14	59	2.81	.96	Inter-group	9.14	4	2.28	2.50	.042	14-18. 15-18
	15	139	2.74	.94	Intra-group	531.66	581	.91			
	16	167	2.64	.98							
	17	170	2.65	.93	Total	540.80	585				
	18	51	2.30	.99							

SEB: Self-efficacy beliefs; SV: Source of the variance;

Table 9. ANOVA results of high school students' self-efficacy beliefs about English by grade

SEBE	Grade	N	\bar{x}	Sd	SV	KT	Sd	KO	F	P	Fr
Reading	9	145	3.27	.91	Inter-group	26.83	3	8.94	11.90	.000	9-12 10-12 11-12
	10	152	3.28	.81	Intra-group	437.45	582	.75			
	11	153	3.04	.83							
	12	136	2.74	.92	Total	464.28	585				
Writing	9	145	2.92	.78	Inter-group	13.79	3	8.94	11.90	.000	9-12 10-12 11-12
	10	152	2.74	.82	Intra-group	382.12	582	.75			
	11	153	2.77	.81							
	12	136	2.49	.83	Total	395.91	585				
Listening	9	145	2.95	.90	Inter-group	6.85	3	2.28	3.00	.030	10-12
	10	152	2.99	.91	Intra-group	442.69	582	.76			
	11	153	2.96	.82							
	12	136	2.71	.86	Total	449.53	585				
Speaking	9	145	2.77	.96	Inter-group	10.68	3	3.56	3.91	.009	9-12 11-12
	10	152	2.70	.99	Intra-group	530.12	582	.91			
	11	153	2.71	.93	Total	540.81	585				
	12	136	2.41	.93							

SEBE: Self-efficacy beliefs about English; SV: Source of the variance

Table 10. Comparison of high school students' metacognitive awareness of reading strategies level and their self-efficacy beliefs about English

Variable	N	r	p
Self-efficacy beliefs about English	586	.59**	.00
Metacognitive awareness of reading strategies	586	.59**	.00

** Correlation is significant at the level of 0.01 (2-tailed).

The groups were compared with each other to determine the groups causing the difference. Since the variances of the groups were homogeneous, the source of the significant difference was examined with the "Tukey" test. According to the results of the Tukey multiple comparisons test, a significant difference was found between the mean scores of the following age groups: 14-18, and 15-17-18, 16-18 in the reading skill; 15-18 in the writing skill; and 14-18 and 15-18 in the speaking skill. It was found that the scores of the 18-year-old age group were in all skills than those of other age groups. The English self-efficacy beliefs of the high school students participating in the study did not indicate a difference by age regarding the listening skill [$F(4.581) = 1.58, P > 0.05$].

As seen in Table 9, high school students' English self-efficacy beliefs indicated a significant difference by grade regarding the reading skill [$F(3.582) = 11.90, P < 0.05$], the writing skill [$F(3.582) = 11.90, P < 0.05$], the listening skill [$F(3.582) = 3.00, P < 0.05$], and the speaking skill [$F(3.582) = 3.91, P < 0.05$]. The groups were compared with each other to determine the groups that caused this difference. Since the variances of the groups were homogeneous, the source of the significant difference was analyzed by using the "Tukey" test. According to the results of the Tukey multiple comparisons test, a significant difference was found between the mean scores of the following grades: 9th-12th, 10th-12th, and 11th-12th grades in the writing skill; 10th-12th grades in the listening skill; and 9th-12th and 11th-12th grades in the speaking skill. It was found that the scores of the 12th grades were lower in all skills than those of other grades.

Findings regarding the third research question

Pearson correlation analysis was conducted to answer the question, "Is there a relationship between high school students' metacognitive awareness of reading strategies and their self-efficacy beliefs about English?", which is the third research question of the study.

According to Table 10, it can be said that there is a moderate, significant, and positive correlation between high school students' metacognitive awareness of English reading strategies and English self-efficacy beliefs ($r=0.59$). In other words, it can be thought that as high school students' levels of metacognitive awareness of English reading strategies increase, their self-efficacy beliefs may increase, as well.

Conclusion, Discussion, and Recommendations

In this study, the examination of the descriptive values of the Metacognitive Awareness of Reading Strategies Inventory sub-dimensions revealed that the students used problem-solving strategies most, which was followed by global reading strategies and support reading strategies, respectively. High school students' metacognitive awareness of reading strategies level indicated a significant difference according to the gender variable. Accordingly, the scores of the female students were found higher.

Studies in the literature examining metacognitive awareness by gender have shown varying results. For example, some studies showed that gender did not reveal a significant difference (Gül, Köse, & Yılmaz, 2015; Sarwar, Yousuf, Hussain, & Noreen, 2009), while some others found a significant difference, which indicated females had higher metacognitive awareness levels (Bağçeci, Döş, & Sarıca, 2011; Demir, 2013; Kana, 2015). On the other hand, high school students' metacognitive awareness of reading strategies level indicated a significant difference according to the grade variable, which revealed that the scores of the 9th and 11th grades were higher than those of other grades. Although there are similar results in the literature (Memnun & Akkaya, 2009; Belet & Güven, 2011), some studies have shown that grade level does not make a significant difference in terms of metacognitive awareness (Gül, Köse, & Yılmaz, 2015; Kana, 2015). For example, Kurtuluş & Öztürk (2017) found that the metacognitive awareness levels of secondary school students did not show a significant difference both by gender and grade level. The metacognitive awareness levels of high school students' reading strategies did not show a significant difference according to the age variable.

The descriptive values of the sub-dimensions of the English Self-Efficacy Belief Scale indicated that the students had the highest self-efficacy beliefs in reading skills, which was followed by listening, writing, and speaking skills, respectively. The self-efficacy beliefs of the female high school students showed a significant difference in all sub-dimensions. There are similar results in the literature. For example, Yılmaz (2007) found that female secondary school students' motivation levels of English were higher than those of male students. Also, Karadeniz (2015) found that female participants had higher self-efficacy perceptions towards critical reading than males. On the other hand, some studies have found opposite results. For example, Gömlüksiz & Kılınc (2014) determined that the English self-efficacy beliefs of male 12th-grade high school students were higher than that of female students. Similar results were found by Mengi (2011), who studied secondary school students. In some studies, self-efficacy beliefs did not show a significant difference by the gender variable. For instance, Kurbanoglu & Takunyacı (2012) determined that there was no significant difference between students' gender and their anxiety, attitudes, and self-efficacy beliefs towards the mathematics lesson. Also, Kurtuluş & Öztürk (2017) found that the self-efficacy perceptions of secondary school students towards mathematics did not show a statistically significant difference according to gender. Moreover, Piercy (2013) determined that there was no significant difference between males and females in terms of self-efficacy levels.

The self-efficacy beliefs of high school students indicated a significant difference according to the grade variable in terms of all skills. The self-efficacy beliefs of the 12th-graders were lower than those of other grades. High school students' self-efficacy beliefs by age showed a significant difference regarding reading, writing, and speaking sub-dimensions. The self-efficacy beliefs of the 18-year-old age group were lower than those of other age groups. This is because students of this age mostly attend

12th grade and spend less time studying English due to the university exam preparation process. High school students' self-efficacy beliefs did not show a significant difference regarding the listening sub-dimension according to the age variable.

There was a moderate, significant, and positive correlation between high school students' metacognitive awareness of English reading strategies and self-efficacy beliefs. This shows that students will feel more self-sufficient in English lessons as their level of metacognitive awareness of reading strategies increases. There are some studies in the literature supporting this result. For example, the metacognitive awareness skills-based education conducted by Mohamed, Mohamed, & Abdeen (2020) improved students' metacognitive awareness, self-efficacy perceptions, and problem-solving skills. Bektaş Bedir & Dursun (2019) found that teaching metacognitive reading strategies had a positive effect on ninth-grade high school students' metacognitive awareness of reading strategies. As a result of the metacognitive reading strategies teaching carried out by Bektaş Bedir & Dursun (2020), students stated that they both developed a metacognitive awareness of reading strategies and increased their self-efficacy towards reading in English. Hermita & Thamrin (2015) and Ghonsooly et al. (2014) found a positive relationship between metacognitive awareness and self-efficacy in their study. Also, Aydın (2016) revealed a strong relationship between metacognitive strategy use and intrinsic motivation and self-efficacy in high school students. Koç & Arslan (2017) found a positive and significant relationship between self-efficacy and the sub-dimensions of metacognitive awareness of reading strategies in secondary school students. Tobing (2013) determined that readers with high self-efficacy used reading strategies more effectively. Zare & Mobarakeh (2011) found a positive relationship between high school students' reading self-efficacy and the use of reading strategies. Kitikanan & Sasimonton (2017) mentioned the importance of self-efficacy belief in English language skills teaching. Genç, Kuluşaklı, & Aydın (2016) found a positive relationship between self-efficacy and language learning beliefs. Sağırılı, Baş, & Bekdemir (2020) found a positive and weak relationship between academic achievement and metacognitive awareness in their study with prospective teachers. Furthermore, Naseri & Zaferanieh (2012) revealed a strong positive relationship between reading self-efficacy beliefs and reading comprehension, as well as between reading self-efficacy beliefs and the use of reading strategies.

In this study, students' metacognitive awareness of reading strategies and self-efficacy were investigated in terms of the English course. Since there is a positive relationship between metacognitive awareness of reading strategies and self-efficacy, teaching plans can be made considering this finding. The failure in EFL teaching and learning can be coped with by designing teaching in light of the findings. In addition, it is recommended that the relationship between metacognitive awareness of reading strategies and self-efficacy be examined at other grade levels and in different courses.

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Araştırmanın Etik Taahhüt Metni

Yapılan bu çalışmada bilimsel, etik ve alıntı kurallarına uyulduğu; toplanan veriler üzerinde herhangi bir tahrifatın yapılmadığı, karşılaşılabilecek tüm etik ihlallerde "Cumhuriyet Uluslararası Eğitim Dergisi ve Editörünün" hiçbir sorumluluğunun olmadığı, tüm sorumluluğun Sorumlu Yazar'a ait olduğu ve bu çalışmanın herhangi başka bir akademik yayın ortamına değerlendirme için gönderilmemiş olduğu sorumlu yazar tarafından taahhüt edilmiştir.