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**LEARNING AND READING STRATEGIES OF SIXTH GRADERS AND THEIR RELATIONSHIP  
WITH PLACEMENT TEST RESULTS**

**ABSTRACT**

The aim of this study is to determine the relationship between reading and learning strategies used by sixth graders and their placement test results. Target population of this study is 6170 students in Elazığ and the sample population is 1689 sixth graders in Elazığ. Data was provided from Reading Strategies Form, Learning Strategies Form, and Placement Test (PT) results of students. In the light of the research results, it is seen that females use reading and learning strategies more when compared to males and females get higher grades from the PT. Moreover, the level of use of reading and learning strategies and PT results of students who were going to course were higher than who were not. The level of use of reading and learning strategies and PT results of students who have their own study room at home were higher than who do not. Lastly, PT can be predicted more precisely from learning strategies compared to reading strategies.

**Keywords:** Learning, Reading, Learning Strategies, Reading Strategies, Placement Test (PT)

**İLKÖĞRETİM ALTINCI SINIF ÖĞRENCİLERİNİN KULLANDIĞI ÖĞRENME, OKUMA  
STRATEJİLERİ VE SEVİYE BELİRLEME SINAV SONUÇLARIYLA KARŞILAŞTIRILMASI (\*)**

**ÖZET**

Araştırmanın amacı, ilköğretim VI. Sınıf öğrencilerinin kullandıkları okuma ve öğrenme stratejilerinin seviye belirleme sınav sonuçlarıyla ilişkisini belirlemektir. Çalışma grubunu Elazığ ilindeki 1689 VI. sınıf öğrencisi oluşturmuştur. Veriler "Okuma Stratejileri Formu" ve "Öğrenme Stratejileri Formu" olmak üzere iki bölümden oluşan bilgi toplama aracı ile toplanmıştır. Ayrıca öğrencilerin 2010 yılında girmiş oldukları seviye belirleme sınavının sonuçları kullanılmıştır. Kızlar erkeklere göre okuma ve öğrenme stratejisini daha fazla kullanmaktalar; kız öğrencilerin SBS ortalamaları, erkek öğrencilerin SBS ortalamalarından daha yüksektir. Dershaneye gidenlerin gitmeyenlere göre okuma-öğrenme stratejilerini kullanma düzeyleri ve SBS sonuçları daha yüksektir. Evinde kendisine ait odası bulunan öğrencilerin de okuma stratejileri ve öğrenme stratejileri ile SBS sonuçları, odası olmayan öğrenciye göre daha yüksek düzeydedir. Öğrenme stratejilerinin, okuma stratejilerine göre SBS'yi daha fazla yordadığı belirlenmiştir.

**Anahtar Kelimeler:** Öğrenme, Okuma, Öğrenme Stratejileri, Okuma Stratejileri, Seviye Belirleme Sınavı (SBS)

## **1. INTRODUCTION (GİRİŞ)**

Strategy is a path leading to a previously determined aim (TDK, 1998). Reading strategy is defined as a cognitive method used for developing thinking and comprehending the text. Using reading strategies is to provide readers to realize their mistakes while reading, to decide what they should make and to take up in activities to correct and prevent these mistakes (Baker & Brown, 1980). Weinstein and Mayer (1986) defined learning strategies as behaviors and thoughts expected to affect students' acquiring knowledge, deciphering them to mind, and reaching them when needed during learning (Güven, 2004). Classification of learning strategies made by Weinstein and Mayer (1986) is the most common one used today (Temizkan, 2007).

## **2. RESEARCH SIGNIFICANCE (ARAŞTIRMANIN ÖNEMİ)**

In this era, when science is advancing rapidly, the individual should be taught how to obtain knowledge rather than transferring it. At the same time, it is necessary for the individuals to read fast and understand what they read. That an individual obtains knowledge come true with his /her learning to learn. Learning to learn is that the individual know his /her own learning feature and find an appropriate strategy and apply it. Learning strategies are tools about how and in what way a person learns. That reading, one of the most fundamental agents of learning life is carried out effectively facilitates self to learn. The realization of effective reading means the self understands what s/he reads. Using learning strategies is helpful for finding what is understood from reading and how mistakes made during reading is corrected.

## **3. RESEARCH METHOD (ARAŞTIRMANIN YÖNTEMİ)**

### **3.1. Participants (Katılımcılar)**

Target population of the study includes 6170 sixth graders from 63 primary schools in the center of Elazığ province in 2009-2010. It was needed to reduce the number of students due to the large sampling size and difficulty in collecting necessary data for the study. While doing this, region of schools and success order of schools according to PT results provided from Elazığ directorate of national education were taken into consideration. Three schools, low, medium and good level, were chosen from each education region. It was acknowledged that schools taken 300 points and higher were good, 270 points and higher were medium, 269,999 and lower were low. There were no good schools although the level of good school points was taken low. After classifying schools according to their region and results of PT, they were chosen randomly from this classification. The number of students replied to the questionnaire was 1364 and 1121 of were evaluated. Personal information about the participants was given in Table 1.

Table 1. Demographic characteristics of participants  
(Tablo 1. Katılımcıların demografik özellikleri)

VARIABLE		f	%
Gender N=1221	Female	641	52,5
	Male	580	47,5
Have a Computer N=1218	Yes	603	49,5
	No	615	50,5
Have a Study Room N=1220	Yes	664	54,4
	No	556	45,6
Go to Course N=1220	Yes	417	34,2
	No	803	65,8
Education Level of the Father N=1196	Primary	393	32,9
	Secondary	313	26,2
	High School	338	28,3
	University	136	11,4
	Other (illiterate)	16	1,3
Education Level of the Mother N=1196	Primary	638	53,3
	Secondary	191	16,0
	High School	159	13,3
	University	62	5,2
	Other (illiterate)	146	12,2

According to Table 1, more than half of the participants were female, half of them have computers, more than half of them have a study room, one third of them were going to a course, fathers of two thirds of them were graduates of primary and secondary school and mothers of half of them were graduates of primary school.

### 3.2. Data Collection Tools (Veri Toplama Araçları)

#### 3.2.1. Reading Strategies Scale (Okuma Stratejileri Ölçeği)

Classification of reading strategies by Temizkan (2007), and Reading Strategy Scale by Karatay (2007) are good sources for the scale used in this study. In order to provide validity and reliability of the scale, expert opinion and statistical processes were administered. 27 item Reading Strategy Scale was prepared depending on expert opinions and related sources. In the scale, negative statements were not used in order primary students not to experience difficulty in understanding. Pilot study of the scale was conducted according to the PT results of 2009 made by Elazığ directorate of national education in three schools, good, medium, and low. The number of students participated in the study was 89 female and 120 male, 209 in total.

Factor analysis was done in order to test the validity of the scale. 3 items were excluded after the analysis. KMO test result was .875 and Barlett's test result was significant. (1733,773, sd: 276, p: 00). According to statistical analysis, the scale was found to have one dimension. Cronbach Alpha reliability coefficient was 906.

#### 3.2.2. Learning Strategies Scale (Öğrenme Stratejileri Ölçeği)

Grammar Learning Strategies Scale by Uslan (2006) and Scale for the determination of Learning Strategies used by Secondary School students in Science Lesson were good sources for Learning Strategies Scale. Negative statements in 25-item 'Learning Strategies Scale' prepared according to expert opinions and related sources were not used in order sixth graders not to experience difficulty in understanding. Pilot study of the scale was conducted according to the PT results of 2009 made by Elazığ national Ministry in three schools, well-moderate-low. The number of students participated in the study were 89 females and 116 males, 205 in total. Factor analysis was done in order to test the validity of the scale and .40 factor load was found. According to statistical analysis, the scale was

found to have one dimension and 3 items were excluded from the scale. KMO test result was .911 and Barlett's test was significant (1538,443, sd: 231, p: 00). Cronbach Alpha reliability coefficient was 906.

#### 4. FINDINGS AND INTERPRETATION (BULGULAR VE YORUM)

In Table 2, although a significant difference was seen [ $t=6,928$ ;  $p<.05$ ] between two genders according to the t-test done in order to find whether there is a significant difference in terms of learning strategies, no significant difference [ $P=.74$ ] was found in terms of gender variable according to the Levene's Test results. It was seen that female students use learning strategies ( $\bar{X}=3,99$ ) more than male students ( $\bar{X}=3,74$ ). According to the t-test results done in order to determine whether there is a significant difference between learning strategies used by two genders, a significant difference was found [ $t=7,233$ ;  $p<.05$ ]. It was seen that female students use learning strategies ( $\bar{X}=4,14$ ) more than male students ( $\bar{X}=3,87$ ). Moreover, according to the t-test results done in order to determine whether there is a significant difference between PT results in terms of gender variable, a significant difference was found [ $t=4,712$ ;  $p<.05$ ]. It was seen that female students get better grades ( $\bar{X}=344,70$  from PT than male students ( $\bar{X}=325,20$ ).

Table 2. Distribution of reading strategies, learning strategies and PT results in terms of gender

(Tablo 2. Öğrenme, okuma stratejilerinin ve SBS sonuçlarının cinsiyet değişkenine göre karşılaştırılması)

	Gender	$\bar{X}$	S	MWU	P	T	p	Levene's Test	
								F	P
Reading Strategies	Female	3,99	0,64	140916,000	0,000	6,928	0,000	0,113	0,737
	Male	3,74	0,65						
Learning Strategies	Female	4,14	0,62	140916,000	0,000			5,700	0,017
	Male	3,87	0,67						
PT	Female	344,70	69,79	157917,000	0,000			5,771	0,016
	Male	325,20	74,77						

$p<.05$

In the light of the t-test results done in order to determine whether there is a significant difference between reading strategies used by two genders in terms of whether they go to a course, no significant difference [ $t=1,895$ ;  $p>.05$ ] was found. It was seen that students going to a course use reading strategies ( $\bar{X}=3,92$ ) more than those who do not ( $\bar{X}=3,85$ ).

According to the t-test results done in order to determine whether there is a significant difference between learning strategies used by two genders in terms going to a course, significant difference was found [ $t=3,688$ ;  $p<.05$ ]. It was seen that students going to a course use reading strategies ( $\bar{X}=4,10$ ) more than those who do not ( $\bar{X}=3,96$ ). According to the t-test results done in order to determine whether there is a significant difference between PT results in terms going to a course, although significant difference was found [ $t=3,688$ ;  $p<.05$ ], there was no significant difference [ $P=.52$ ] for the same variable according to the Levene's test. It was seen that scores of students who are going to a course were higher ( $\bar{X}=382,59$ ) than those who are not ( $\bar{X}=310,93$ ).

Table 3. Distribution of reading strategies, learning strategies and PT results in terms of whether students go to a course or not.  
(Tablo 3. Öğrenme, okuma stratejilerinin ve SBS sonuçlarının dershaneye gitme durumuna göre karşılaştırılması)

	Course	$\bar{X}$	S	MWU	P	T	p	Levene's Test	
								F	P
Reading Strategies	Yes	3,92	0,66			1,895	0,058	0,070	0,791
	No	3,85	0,66						
Learning Strategies	Yes	4,10	0,62	146642,000	0,000			3,970	0,047
	No	3,96	0,67						
PT	Yes	382,59	61,42			18,841	0,000	3,798	0,052
	No	310,93	65,98						

p<.05

According to the t-test results done in order to determine whether there is a significant difference between reading strategies in terms having a study room, significant difference was found [t=2,738; p<.05]. There is, however, no significant difference [P=.51] according to the Levene's test. It was seen that students who have a study room use reading strategies ( $\bar{X}=3,92$ ) more than students who do not ( $\bar{X}=3,82$ ). In table 4, according to the t-test done in order to determine whether there is a significant difference between learning strategies used by two genders in terms having a study room, a significant difference was found [t=4,173; p<.05]. It was seen that students having a study room use learning strategies ( $\bar{X}=3,92$ ) more than those who do not ( $\bar{X}=3,92$ ).

According to the t-test results done in order to determine whether there is a significant difference between PT scores of students in terms having a study room, a significant difference was found [t=6,516; p<.05]. However, there was no significant difference [P=.67] according to the Levene's test. It was seen that students who have a study room get higher grades ( $\bar{X}=347,59$ ), than students who do not ( $\bar{X}=320,77$ ).

Table 4. Distribution of reading strategies, learning strategies and PT results in terms of whether students have a study room or not  
(Tablo 4. Öğrenme, okuma stratejilerinin ve SBS sonuçlarının evlerinde çalışma odasının bulunması durumuna göre karşılaştırılması)

	Study Room	$\bar{X}$	S	MWU	P	T	p	Levene's Test	
								F	P
Reading Strategies	Yes	3,92	0,67			2,738	0,006	0,435	0,510
	No	3,82	0,65						
Learning Strategies	Yes	4,08	0,64	159379,500	0,000			4,075	0,044
	No	3,92	0,67						
PT	Yes	347,59	71,60			6,516	0,000	0,179	0,672
	No	320,77	71,70						

p<.05

In order to determine the relationship between reading strategies and learning strategies, reading strategies and PT scores; learning strategies and PT scores, Pearson Correlation was used ( Table 5).

Table 5. Relationship between reading and learning strategies and PT scores of students

(Tablo 5. Öğrencilerin kullandıkları okuma ve öğrenme stratejileri ile SBS puanlarının birbirleriyle ilişkisi)

		PT	Reading Strategies	Learning Strategies
PT	n	1221	1221	1221
	r		.311**	.336**
	p	1	.000	.000
Reading Strategies	n	1221	1221	1221
	r	.311**	1	.815**
	p	.000		.000
Learning Strategies	n	1221	1221	1221
	r	.336**	.815**	1
	p	.000	.000	

\*\*  $p < 0.01$

When looked at table 5, a significant relationship is seen between reading strategies, learning strategies and PT scores. Relationship increases as it gets closer to value 1. In line with this, when looked at the table, the strongest relationship is seen between reading strategies and learning strategies. Moreover, a relationship between reading strategies and PT was seen. This relationship, however, does not as strong as the relationship between reading strategies and learning strategies. Similarly, the relationship between learning strategies and PT is approximately the same as the relationship between reading strategies and PT.

The study tried to find an answer to the question of whether scores of learning strategies and scores provided from learning strategies scale is a significant predictor of PT scores? In order to find an answer to this question staged multiple regression analysis was administered. Before the analysis, assumptions of regression analysis was tested. According to Büyüköztürk (2005), there must be a linear relationship between precursor variable in regression analysis and dependent variable. Moreover, in multiple regression analysis, a problem defined as multi-colinearity can be met between precursor variables. In the analysis, three situations listed below is an indicator of multi-colinearity between independent variables.

- Tolerance values ( $1-R^2$ ) being below 20.
- Variance inflation factor (VIF), being higher than 10.
- Condition indices (CI) being higher than 30.
- 

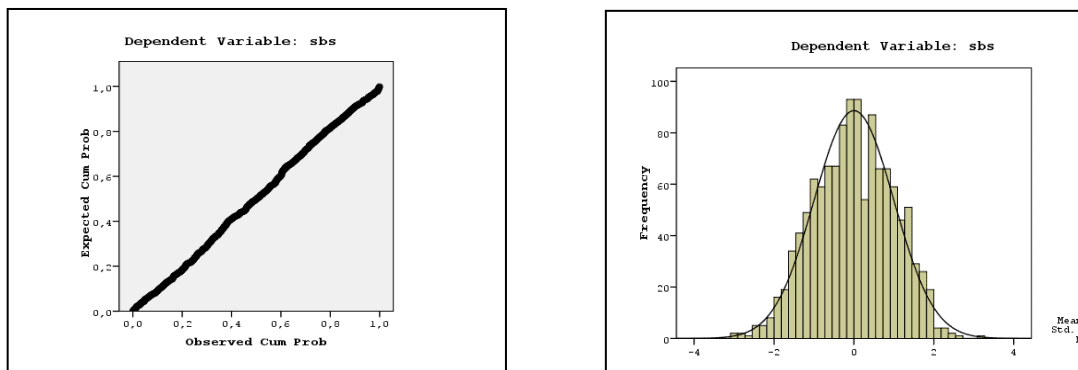


Figure 1. Graphic showing linearity and normality distribution of PT Scores

(Şekil 4.SBS puanlarına ilişkin doğrusallık ve normallik dağılımını gösteren grafik)

When graphics are analyzed, a linear and positive relationship can be seen between variables. According to the graphics, curves of normal distribution and histogram are seen to have a distribution close to normal. When considered multi-colinearity between precursor variables, it was found that tolerance values are between 0,37 and 1,00, variance inflation factor between 1,00 and 2,72 and the highest Condition Indices value 22,11. Considering this, there is no multi-colinearity between precursor variables. Having tested the assumptions, staged multi regression analysis was administered in line with sub-problems. Predicted variable of the study is PT scores and predicting variables of the study are scores of reading strategies of students and scores of learning strategies scale scores. According to predictor variables determined, results of regression analysis related to predicting PT scores are shown in Table 6.

Table 6. Staged multi regression analysis results related to predicting PT scores

(Tablo 6. SBS puanlarının yordanmasına ilişkin aşamalı çoklu regresyon analizi sonuçları)

Variable	B	R	$\Delta R^2$	$\beta$	$\beta^2$	t	P
(CONSTANT)	181,732					15,206	0,00
Learning X <sub>1</sub>	1,315	0,346	0,120	0,269	0,072	6,08	0,00
Reading X <sub>2</sub>	0,431	0,351	0,03	0,097	0,009	2,191	0,03
R <sup>2</sup> = 0,123		F= 85,63		sd= 2;1218		p=0,000	

According to results of regression analysis, regression equation related to predicting PT scores is as follows:

$$PT \text{ Scores} = 181,732 + 1,315X_1 + 0,431X_2$$

According to the analysis, two variables have a significant relationship with PT scores and these variables together account for nearly 12% of total variance in PT scores ( $R=0,351$ ,  $R^2=0,123$  and  $p<.01$ ). It is thought that two variables are important predictors in terms of their contribution related to PT scores. When change in square of regression coefficient considered ( $\Delta R^2$ ), learning strategies variable contributes to the variance 12%. Reading strategies variable follows this variable with 3%. It is seen that learning strategies predicts PT scores more when compared to reading strategies.

##### 5. CONCLUSIONS (SONUÇLAR)

- It was seen that students use learning and reading strategies. In line with this, teachers should try activities which develop students' reading and writing strategies.
- It was seen that female students use reading strategies and learning strategies more than male students. Average of PT scores of female students are higher than that of male students. More use of reading and learning strategies by female students can be seen as the reason for their higher PT scores.
- Level of reading and learning strategies and PT results of students who go to a course were higher than those who do not. Considering these results, it can be said that education given in a course is beneficial to students. This result is in line with other studies in the field. Parents providing opportunity for their children to go to a course positively affected the use of these strategies and PT results. However, not every parent has such an opportunity. Therefore, courses arranged in schools at weekends should target to increase the level of strategy use of students. By doing so, students who don't have an opportunity to go to a course can benefit from weekend courses at schools.

- It was seen that reading strategies and learning strategies have a relationship with PT results. Among these relationships, learning strategies is seen to have a higher level of relationship with PT strategies.
- It was found that there is a strong relationship between reading and learning strategies. This may mean that one who develop reading strategies also develop learning strategies and the vice versa.
- Reading strategies used by students can be a predictor for PT results. However, predictor level of learning strategies for PT results is higher than that of reading strategies.
- Having a study room in their homes, increase the success of students. This is closely related with the economic status of parents. Even if parents don't have an opportunity to provide a study room for their children, they should provide a good place for their children to study well.

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