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# A Comparative Analysis of the Reading Comprehension Levels and Reading Attitude Skills of Gifted and Nongifted Fifth Grade Students\* Murat ÖKCÜ\*, Savaş AKGÜL\*\*

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## **Abstract**

Gifted children differ from their nongifted counterparts in that they show different ways of thinking, maintain higher levels of attention, manifest advanced cognitive skills, and enjoy researching and exploring (Clark, 2012). These differences are also reflected in their attitude to reading and reading comprehension skills. Regarding this, the current study aims to examine the reading attitudes and reading comprehension skills of a group of gifted and nongifted fifth grade students. The participants of the study comprise of 401 children (168 gifted, 223 nongifted). Data for the study were collected through the Personal Information Form designed by the researchers, the Reading Comprehension Test prepared based on the questions in the Free Boarding and Scholarship Examination for the Fifth Graders administered by the Ministry of Education, and the Reading Attitude Scale developed by Karahan (2018). Data were analyzed with SPSS 24.0 program (independent sample t-test, one-way analysis of variance [ANOVA], and pearson correlation analysis). The findings of the study indicate that gifted students' reading comprehension skills differ significantly from those of the nongifted, which shows that gifted students have higher levels of reading comprehension than their nongifted peers. Considering the variables including gender, pre-school education, and time allocated for daily extracurricular reading, a significant difference was found among the gifted students who allocated two or more hours for daily extracurricular reading. That is, the students in this group showed higher reading comprehension skills than the others. However, no significant difference was found between reading attitude and time allocated to extracurricular reading for the gifted. Similarly, no significant difference was observed between extracurricular daily reading duration and reading comprehension skills for the nongifted participants. While a significant difference was observed between the pre-school education status of the nongifted female students and their reading comprehension skills and reading attitudes, no significant difference was found for the nongifted male students. No significant difference was observed between the reading attitudes of the gifted students and their reading comprehension skills. However, a significant difference was observed between the nongifted students' reading attitudes and reading comprehension skills.

Keywords: Special education, nongifted, giftedness, reading comprehension, reading attitude

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# Beşinci Sınıf Olağan Gelişim Gösteren ve Özel Yetenekli Öğrencilerin Okuma Tutumları ve Okuduğunu Anlama Becerilerinin İncelenmesi\* Murat ÖKCÜ\*, Savaş AKGÜL\*\*

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Öz

Özel yetenekli çocuklar, düşünme biçimlerinin farklı olması, dikkat seviyelerinin yüksek olması, araştırma yapmayı ve keşfetmeyi sevmeleri ve yüksek bilişsel seviyelere sahip olmaları bakımından olağan gelişim gösteren çocuklardan farklılık göstermektedirler (Clark, 2012). Bu farklılıklar onların okuma tutumlarına ve okuduğunu anlama becerilerine de yansımaktadır. Bu calışmanın amacı beşinci sınıf olağan gelişim gösteren ve özel yetenekli öğrencilerin okuma tutumları ve okuduğunu anlama becerilerini incelemektir. Bu amaçla yapılan çalışmaya 168'i özel yetenekli ve 223'ü olağan gelişim gösteren olmak üzere toplam 401 çocuk katılmıştır. Araştırmada veri toplama araçları olarak kişisel bilgi formu, Millî Eğitim Bakanlığı tarafından yapılan Parasız Yatılılık ve Bursluluk Sınavı (PYBS) ortaokul 5. sınıf öğrencileri için hazırlanan sorulardan derlenen Okuduğunu Anlama Testi ve Karahan (2018) tarafından geliştirilen Okumaya Yönelik Tutum Ölçeği kullanılmıştır. Veriler SPSS 24.0 programı ile (bağımsız örneklem t testi, tek yönlü varyans analizi [ANOVA], pearson korelasyon analizi) analiz edilmiştir. Analizler sonucunda elde edilen bulgular, okuduğunu anlama becerisi özel yetenekli öğrencilerin lehine anlamlı bir şekilde farklılaştığına işaret etmektedir. Bu durum özel yetenekli öğrencilerin olağan gelişim gösteren öğrencilere göre daha yüksek düzeyde okuduğunu anlama becerisine sahip olduklarını göstermektedir. Cinsiyet, okul öncesi eğitim alma durumu ve ders dışı günlük okumaya ayrılan süre değişkenleri doğrultusunda yapılan analizler dikkate alındığında, ders dışı günlük okumaya ayrılan zaman ile okuduğunu anlama becerisi özel yetenekli öğrencilerde günlük ders dışı okuma saati 2 ve üzeri olanlarda anlamlı farklılık tespit edilmiştir. Buna göre, ders dışı günlük 2 saat ve üzeri okuma yapan özel yetenekli öğrencilerin okuduğunu anlama becerilerinin daha yüksek olduğu belirlenmiştir. Okuma tutumu ile ders dışı okumaya ayrılan süre arasında ise anlamlı bir farklılık belirlenmemiştir. Olağan gelişim gösteren öğrencilerin ders dışı günlük okuma ile okuduğunu anlama becerilerinde anlamlı bir farklılık tespit edilmemiştir. Hem kız hem erkek özel yetenekli öğrencilerin okuma tutumları ve okuduğunu anlama becerileri ile okul öncesi eğitim alma durumları arasında anlamlı bir farklılık tespit edilmemistir. Olağan gelisim gösteren kız öğrencilerin okul öncesi eğitim alma durumu ile okuduğunu anlama becerileri ve okuma tutumları arasında anlamlı farklılık belirlenirken, olağan gelişim gösteren erkek öğrencilerin okul öncesi eğitim alma ile okuduğunu anlama becerileri ve okuma tutumları arasında anlamlı farklılık tespit edilmemiştir. Özel yetenekli öğrencilerin okuma tutumları ile okuduğunu anlama becerileri arasında anlamlı farklılık gözlenmemiştir. Ancak olağan gelişim gösteren öğrencilerin okuma tutumları ile okuduğunu anlama becerileri arasında anlamlı farklılık gözlenmiştir.

**Anahtar kelimeler:** Özel eğitim, olağan gelişim, özel yetenek, okuduğunu anlama, okuma tutumu

Bu çalışma, birinci yazarın ikinci yazar danışmanlığında hazırladığı yüksek lisans tezine dayanmaktadır. Bu çal

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# 1. Introduction

Reading is a complex activity in which individuals are to use their mental skills effectively (Coşkun, 2002; Güneş, 2016; Sayar and Turan, 2012; Deniz, 2015). During reading, high-level mental processes and activities such as attention, recalling, pronunciation, analysis, evaluation and synthesis come into play (Güneş and Susar Kırmızı, 2014; Güneş, 2012). By activating these high-level mental activities, readers seek to strengthen their advanced cognitive skills. The fact that the mental activities involved in reading process become active is closely related to reading comprehension skills (Güneş, 2003; Mete, 2012; Güldenoğlu, Kargın and Ergül, 2016, 253). Reading comprehension is defined as understanding messages in a text in accordance with the intended purpose (Meece and Miller, 1999; Arslan, Çelik and Çelik, 2009). According to Akyol and Kirkilic (2007), reading comprehension is achieved through the engagement of the reader, the author and the environment. What is expected from the reader in the process is to be able to read and interpret the messages in the text. Reading and reading comprehension is a lifelong process (Balcı, 2009; Başaran and Ateş, 2009; Lazarus and Callahan, 2000) and indeed a requirement for both daily routines and academic life. Furthermore, reading, which enables students to achieve their potential and tremendously contribute to their learning experience, is justifiably regarded as one of the key skills in education. There are several factors influencing students' reading experience, which can be divided into two groups as internal and external factors. Internal factors refer to individual ones including the reader/student's cognition, strategic skills, prior knowledge and other affective factors. External factors, on the other hand, include the ones that are not directly related with the student, such as the written material provided, the context of the content and other variables related to the author (Davasligil and Leana, 2004). Due to the importance of reading comprehension in both academic life and daily routines, further research is needed so that students' reading comprehensions skills can be developed and a better understanding of reading comprehension can be achieved (Sallabas, 2008; Güneş, 2003; Mete, 2012, Samuels, 1997; Bagci, 2010).

Another factor affecting reading experience and reading comprehension skill is the attitude to reading. Reading attitude can be broadly defined as an individual's approach towards the act of reading (Alexander and Filler, 1976, cited in Yamashita, 2004). This approach can be positive or negative. Students' positive or negative reading attitudes are often closely related to the situations they encounter in their school settings and immediate environments, and directly affect their academic performance. For example, children that are highly motivated to learn and seek information develop more positive reading attitudes and achieve higher reading comprehension. Children who read more achieve higher reading comprehension as they experiment with different words and sentence structures (Gökdere and Çepni, 2003). Therefore, students need to develop positive reading attitudes so that they can be successful in not only academic settings but also many different domains of life. Students' attitudes towards reading are, to a large extent, shaped by the attitudes of the family, the environment and the school towards reading. In the current study, the effect of attendance to preschool, gender, and time allocated for extracurricular reading on reading attitude was examined. Previous studies examining the importance of reading attitude clearly indicate that students should receive the necessary support from their schools and families in order to have the motivation they need (Yamashita, 2004; Seitz, 2010; Sallabaş, 2008; Yılmaz, 2008; Cunningham, 2008; Çeçen and Deniz, 2015; Akkaya and Özdemir, 2013). Activities designed by teachers can help eradicate

negative attitudes towards reading and enhance students' motivation to indulge in reading (Broeder and Stokmans, 2013).

One of the significant determinants of reading attitude and reading comprehension skill is the cognitive level of the child (Harrison, 2004). Regarding this, two well-established categories, the gifted and the nongifted, deserve special consideration. Past research has evidenced that gifted children often possess more advanced thinking skills in general cognitive skills domains compared to the nongifted. Sternberg (1988) states that intelligence has three dimensions; namely, analytical, creative and practical. Gifted children outperform their nongifted counterparts in analytical intelligence, which is manifested in making comparative analysis. Creative intelligence, on the other hand, is frequently utilized when coping with instant and unusual situations. Finally, practical intelligence becomes apparent when dealing with day-to-day problems (Bakır, 2015; Başaran, 2004). It is justifiably expected that these three different dimensions of the intelligence will be reflected in reading and reading comprehension skills.

It is also noteworthy to state that reading comprehension is often perceived as a mental activity, yet the degree of desirability/undesirability of this action or students' willingness/unwillingness to participate in reading activities imply the involvement of certain affective factors. When the cognitive and affective capabilities of students interplay with each other in a coordinated manner, they may enjoy a sense of accomplishment and realize their goals and meet the expectations. Acknowledging the involvement of both cognitive and affective factors in reading and reading comprehension, the current study takes the students' attitudes into account while trying to determine the reading comprehension skills of the gifted and nongifted fifth grade students. By doing so, the current study aims to contribute to the existing literature by developing a more accurate and comprehensive account of reading comprehension skills.

Gifted children have the potential to learn faster, use more metacognitive abilities, establish faster and better connections between pieces of information, and be more successful in understanding what they read than their nongifted counterparts (Özcan, 2018; Gökdere and Çepni, 2003; Sternberg, 1988; Certo et al., 2010; Fehrenbach, 1991; Reis at al., 2008). Furthermore, gifted individuals can acquire literacy skills at an earlier age than their nongifted peers. If these skills acquired at early ages are adequately supported and managed well, these individuals can understand what they read much better and faster, enjoy what they read and develop a positive attitude towards reading (Smith, 1992; Bakır, 2015; Başaran, 2004; Nootens, at al., 2019). Similarly, some nongifted children can also acquire reading skills at an early age because of their individual differences and/or environmental factors surrounding them. Whether it is acquired at an early age or in its normal course, educational processes play a crucial role in developing reading comprehension skills/positive reading attitudes and utilizing them both for the gifted and nongifted.

Individuals perform reading activities in line with their interests and desires. For this reason, development of students' interests and desires for reading is an important educational goal (Dökmen, 1994). In the current study, gifted and nongifted fifth grade students' reading comprehension skills and their attitudes to reading were investigated in terms of certain variables. The study is expected to address the gap in the literature and help practitioners and families develop a more positive and informed approach to students' reading comprehension and reading attitude. In line with the background, the current study undertaken seeks to answer the following research questions:

- 1. Is there a statistically significant difference between the gifted and nongifted students' reading comprehension and reading attitude mean scores?
- 2. Is there a statistically significant difference between gender and the reading comprehension/reading attitude total score averages?
- 3. Is there a statistically significant difference between the total mean scores of reading comprehension and reading attitude in terms of preschool education participation?
- 4. Is there a statistically significant difference between the total mean scores of the participants' reading comprehension and reading attitudes in terms of extracurricular daily reading time?
- 5. Is there a statistically significant difference between the reading comprehension and reading attitudes of the gifted and nongifted participants?

### 2. Method

### 2.1. Research model

'Correlational survey model' is a research model aiming to identify the change and the extent of change between two and more variables (Karasar, 2016; p.114). In the current study, reading attitudes and reading comprehension levels of the gifted children and their nongifted counterparts were investigated based on various variables. Therefore, the quantitative correlational survey model was adopted in the current study.

# 2.2. Sample

Convenience sampling method (Kılıç, 2013) was employed in this study and data were collected from five different mainstream schools and three Science and Art Centres (BILSEMs), situated in Istanbul. The sample group of the research is comprised of 401 fifth graders: 168 gifted and 223 nongifted children. The gifted children were selected among the 5th grade students who successfully passed BILSEM examinations administered by the Ministry of Education. The nongifted group, on the other hand, consisted of the 5th grade students that took BILSEM exams yet were not diagnosed as gifted.

Science and Art Centres (BILSEMs) are formal education institutions operating under the Ministry of National Education, where gifted students are provided additional extracurricular education and training in accordance with their interests. Science and Art Centres cater to the needs of gifted students and are available across the country. Students are admitted to these institutions based on their scores in various diagnostic tests and exams; and provided training in workshops designed according to related domains of intelligence. In addition, social, mental and physical services are also provided. Thus, gifted children not only are provided with the opportunity to develop their special talents, but also continue their education in mainstream schools without facing the risk of exclusion (Baykoç Dönmez, 2012).

# 2.3. Data collection and data collection tools

Ethical approval was obtained from Biruni University Ethical Committee (date: 29.03.2019, document id: 27) before data collection procedure. All the participating students were given a written consent form stating that their participation in the research was voluntary; they had the right to withdraw from research at any time without giving any excuse; and their confidentiality was secured. The participants kept their anonymity in the forms as no information that may jeopardize their confidentiality was demanded. Data for the study were collected through the following tools.

*Personal Information Form:* Personal Information Form is the demographic data form designed by the researchers. It includes the demographic details of the participants such as gender, preschool educational status, and reading frequency.

Reading Comprehension Test: The test was compiled based on the questions of the Free Boarding and Scholarship Examination (PYBS) for 5th grade students, administered by the Ministry of National Education (MEB, 2011). It was prepared by the researchers to measure the extent to which students can comprehend what they read. The test consists of 18 multiple choice questions. Children are required to mark the correct options according to the reading texts given. The score varies between 0-18. The Cronbach alpha internal consistency coefficient for the reading comprehension test was determined as 0.79.

Reading Attitude Scale: The reading attitude scale, developed by Karahan (2018) to determine the reading attitudes of 5th and 6th graders, is one-dimensional and consists of 26 items. The highest score that can be obtained from the five-point Likert scale was determined as 130 and the lowest score was 26. According to the research results documented by Karahan (2018), the Cronbach alpha internal consistency coefficient of the scale is 0.95. The Cronbach alpha internal consistency coefficient was determined as 0.93 in the current study. The fact that the internal consistency coefficients were close to each other in both studies is indicative of the consistency of the scale.

### 2.4. Analysis of the Data

Prior to the data analyses, the normality of the data set was tested. The normality test results showed that there was only slight difference between mod-median and mean values in the total scores obtained for the scales; z transformations of the values did not exceed  $\pm 3$  z points; the points formed an approximate straight line in the normal probability plot; the value obtained by dividing the skewness and kurtosis values to the standard error was around  $\pm 3$ ; and Kolmogorov-Smirnov test statistics were not statistically significant (KS = 0.200; p < .05) (Büyüköztürk, 2021). The relevant analysis and results confirmed that the data set had normal and near-normal distribution, thereby allowing parametric tests to be conducted.

# 3. Findings

In this section, the findings are presented along with the relevant tables and interpretations. The frequencies and percentages for the demographic variables of the sample group are presented in Table 1.

Table 1. Frequency and Percentage Distribution for the Demographic Variables

Variables	Catagory	Gifted	Gifted		Nongifted	
variables	Category	n	%	n	%	
Gender	Female	78	46.4	142	60.9	
Gender	Male	90	53.6	91	39.1	
	Yes	151	89.9	159	68.2	
Pre-school education attendance	No	17	10.1	74	31.8	
Time allogated for outro granicalor	0-1 hour	92	54.8	106	45.5	
Time allocated for extracurricular	1-2 hour	48	28.6	85	36.5	
reading	Over 2 hours	28	16.7	42	18.0	
Total		168	100.0	223	100.0	

When Table 1. is examined, it is seen that a total of 223 nongifted children (142 females (60.0 %) and 91 males (39.1%)) participated in the study. As for the gifted, 168 students participated in the study (78 males, 90 females; with percentages 46.4 and 53.6, respectively). The percentages

of those having attended pre-school education are 89.9 for the gifted and 68.2 for the nongifted. When the frequencies and percentages for the time allocated for reading as a daily extracurricular activity are examined, 92 (54.8 %) of the students spend 0-1 hour for daily reading, 48 (28.6%) of them spend 1-2 hours and 28 (16.7 %) students allocate 2 hours in the gifted group. In the nongifted group, the totals are 106 (45.5%), 85 (36.5 %) and 42 (18%), respectively.

Descriptive statistics of research variables are presented in Table 2.

**Table 2. Descriptive Statistics for the Scales** 

Groups	Scales	N	Min.	Max.	Ā	SD
Gifted	Reading Comprehension Test	168	2	18	13.66	3.48
Girtea	Reading Attitude Scale	168	73	130	112.76	13.92
Noncified	Reading Comprehension Test	233	2	18	12.22	3.81
Nongifted	Reading Attitude Scale	233	72	130	111.61	15.35

The Reading Comprehension Test scores for the gifted group range between 2-18 points with an average of  $13.66 \pm 3.48$ . The Reading Attitude Scale scores range between 73-130 points with an average of  $112.76 \pm 13.92$ . For the nongifted, the Reading Comprehension Test scores were in the range of 2-19 points and the average was calculated as  $12.22 \pm 3.81$ . The Reading Attitude Scale scores were between 72-130 points and the average was  $111.61 \pm 15.35$ .

Reliability coefficients was calculated by Cronbach Alpha and Guttman Split Half analysis.

**Table 3. Reliability Coefficient for Research Scales** 

Scales	Cronbach Alpha	Guttman Split Half
Reading Comprehension	.79	.70
Reading Attitude	.93	.87

In the reliability analysis, the internal consistency coefficient was found 0.79 and the reliability coefficient was 0.70 for the Reading Comprehension Test. The internal consistency coefficient was 0.93 and the reliability coefficient was 0.87 for the Reading Attitude Scale. These values confirm that the scales used are reliable for the research sample.

Independent Sample t-Test was carried out to calculate the difference between the mean scores of the reading comprehension and reading attitudes of both groups. The results are presented in Table 4.

Table 4. Independent sample t-Test for the Reading Comprehension and Reading Attitudes

Scales	Groups	N	Ā	SD	t	df	P
Reading	Gifted	168	13.66	3.48	3.874*	399	.00
Comprehension Test	Nongifted	233	12.22	3.81			
Reading Attitude Scale	Gifted	168	112.76	13.92	.767	399	.44
	Nongifted	233	111.61	15.35			

p < .05

The analysis revealed that there was a statistically significant difference between the Reading Comprehension Test total average scores ( $t_{(399)}$ = 3.874; p<.05) of the gifted and the nongifted participants, while no statistically significant difference was found between the total average

scores of the Reading Attitude Scale ( $t_{(399)}$ = .767; p>.05). The reading comprehension total average scores for the gifted participants was found to be higher.

The difference between the total average scores of reading comprehension and reading attitudes of both groups by gender was analyzed with Independent Sample t-Test. The results are documented in Table 5.

Table 5. Independent sample t-Test for the Reading Comprehension and Reading Attitudes of the Gifted and Nongifted Students by Gender

Groups	Scales	Gender	N	X	SD	t	df	P
	Reading	Female	78	13.79	3.55	.463	166	.64
Gifted	Comprehension Test	Male	90	13.54	3.45			
	<b>Reading Attitude</b>	Female	78	113.08	13.37	.278	166	.78
	Scale	Male	90	112.48	14.44			
	Reading	Female	142	12.96	3.38	3.804*	231	.00
Nongifted	Comprehension Test	Male	91	11.07	4.16			
	Reading Attitude	Female	142	113.91	14.62	2.901*	231	.00
	Scale	Male	91	108.02	15.85			

<sup>\*</sup> p < .05

No statistically significant difference was found between the total average scores of the Reading Comprehension Test ( $t_{(166)}$  = .463; p> .05) and the Reading Attitude Scale of the female and male participants ( $t_{(166)}$  = .278; p> .05) for the gifted group. For the nongifted group, a statistically significant difference was found between the Reading Comprehension Test ( $t_{(231)}$  = 3.804; p< .05) and the Reading Attitude Scale ( $t_{(231)}$  = 2.901; p< .05) scores in terms of gender. It was observed that the nongifted female students' total average scores were higher.

The difference between average scores of reading comprehension and reading attitude in terms of pre-school education attendance was examined with Independent Sample t-Test. The results are shown in Table 6.

Table 6. Independent Sample t-Test for the Reading Comprehension and Reading Attitude Total Average Scores of the Participants in terms of Preschool Education Attendance

Groups	Scales	Pre-School Education Attendance	N	$ar{\mathbf{X}}$	SD	t	df	P
	Reading	Yes	151	13.52	3.54	-1.531	166	.13
Gifted	Comprehension Test	No	17	14.88	2.69			
	Reading Attitude	Yes	151	112.87	13.86	.327	166	.74
	Scale	No	17	111.71	14.77			
	Reading	Yes	159	12.65	3.43	2.548*	231	.01
Nongifted	Comprehension Test	No	74	11.30	4.40			
S	Reading Attitude	Yes	159	113.31	13.92	2.514*	231	.01
	Scale	No	74	107.95	17.59			

p < .05

The results indicate that there is no statistically significant difference between the total average scores of the Reading Comprehension Test ( $t_{(166)} = -1.531$ ; p> .05) and the Reading Attitude Scale ( $t_{(166)} = .327$ ; p> .05) for the gifted group. For the nongifted group, a statistically significant difference was observed between the total average scores of the participants in the Reading Comprehension Test ( $t_{(231)} = 2.548$ ; p< .05) and the Reading Attitude Scale ( $t_{(231)} = 2.514$ ; p< .05). To compare group means, Tukey's HSD post hoc test was applied. The findings indicate that the nongifted having attended pre-school education had higher total average scores.

The difference between the average scores of the Reading Comprehension Test and The Reading Attitude Scale of the participants regarding time allocated for extracurricular daily reading was analyzed with one-way analysis of variance (ANOVA). The results can be seen in Table 7.

Table 7. One-way Analysis of Variance (ANOVA) for the Reading Comprehension Test and Reading Attitude Scale Total Average Scores of the Participants Regarding Time Allocated for Extracurricular Daily Reading

Groups	Scales	Reading Duration	N	$\bar{\mathbf{X}}$	SD	F	df	P
	Reading	0-1 hour	92	13.17	3.50	3.087*	2165	.05
	Comprehe	1-2 hours	48	13.81	3.51			
Gifted	nsion Test	Over 2 hours	28	15.00	3.12			
Girtea	Reading	0-1 hour	92	110.70	14.62	3.037	2165	.05
	Scale	1-2 hours	48	113.77	12.75			
	Attitude	Over 2 hours	28	117.79	12.31			
	Reading	0-1 hour	106	11.97	3.96	2.215	2230	.11
	Comprehe	1-2 hours	85	11.98	3.76			
Nama: Grad	nsion Test	Over 2 hours	42	13.33	3.38			
Nongifted	Reading	0-1 hour	106	106.98	15.91	10.541*	2230	.00
	Scale	1-2 hours	85	114.19	13.93			
	Attitude	Over 2 hours	42	118.07	13.25			

<sup>\*</sup>p < .05

The findings indicate that there exists a statistically significant difference between the total average scores of the Reading Comprehension Test (F (2,165) = 3.087; p < .05) regarding daily extracurricular reading time in the gifted group. However, no statistically significant difference was found between the total average scores of the Reading Attitude Scale (F (2,165) = 3.037; p> .05). To compare group means, Tukey's HSD post hoc test was applied. The results show that the gifted children who read for more than 2 hours on a daily basis have higher total average scores in terms of reading comprehension. No statistically significant difference was found between the total average scores of the nongifted students in the Reading Comprehension Test (F (2,230) = 2.215; p> .05). Yet, there was a statistically significant difference between the total average scores in the Reading Attitude Scale (F (2,230) = 10.541; p< .05). The nongifted participants who read for more than 2 hours as an extra-curricular activity were found to have higher average scores in the Reading Attitude Scale.

The correlation between reading comprehension and reading attitude was examined by Pearson Correlation Analysis. The relevant results are shown in Table 8.

Table 8. Analysis of the Correlation between the Reading Comprehension Test and the Reading Attitude Scale Total Average Scores of the Gifted and Nongifted Children

Groups	Scales	r
Gifted	Reading Comprehension Test-	.13
	Reading attitude Scale	
Nongifted	Reading Comprehension Test-	.24*
-	Reading attitude Scale	

p < .05

The correlation coefficient was calculated as r = .13 for the gifted, which is not statistically significant. A statistically significant correlation coefficient was found for the nongifted (r = .24). The correlation between reading comprehension and reading attitude was found to be stronger and significant in the nongifted group.

### 4. Discussion and Conclusion

The findings obtained from the analysis of the data indicate that there is a significant difference between the reading comprehension skills of the gifted and those of the nongifted. Certo et al. (2010) suggest that the gifted's intellectual and social concerns may explain their high level of reading comprehension skills. While the society expects the gifted to be more knowledgeable and acts in a quantity-oriented manner, gifted children acts with an internal desire to acquire knowledge and experience, primarily to engage in social interactions and communicate in social settings. These intellectual and social concerns allow the children to have a better understanding of what they read and act as a motivating stimulus. Fehrenbach (1991) states that the gifted's successful employment of different reading strategies contributes to the development of their reading comprehension skills. The differences observed in the current research may also be due to the variations between the education provided for the gifted and the nongifted. Teacher attitude and methodologies adopted interplay with students' reading comprehension skills (Ness, 2016). Our findings are consistent with those in Özcan's (2018) study, where it was evidenced that certain statistically significant differences existed between the scores of the gifted and nongifted fifth graders. It is implied in the current study that gifted children are more successful in understanding what they read. Bonds, Bonds and Peach (1992) state that there is a correlation between reading and cognitive activity. The authors claim that good readers read strategically, which, in turn, improves their reading skills as they see words as sources of information. The fact that the gifted children are highly motivated and have developed different thinking skills also justifies the authors' claims (Gökdere and Çepni, 2003).

In the current study, a significant difference was found between the reading comprehension skills of the gifted and nongifted groups. Özcan (2018) recently found that gifted students' reading comprehension are higher than those of the nongifted, which is indicative of the fact that gifted children generally have higher reading comprehension skills (İlter, 2017). In our study, we did not observe any significant difference regarding the reading attitudes of the gifted and nongifted. One possible explanation for this can be the availability or lack of stimulants in the environment. Considering that students' reading attitudes are often shaped by their immediate circles and closely related to their experiences with the family, school and friends (Sallabaş, 2008), certain affective factors can interplay with the attitude to reading. Even though students demonstrate high level reading comprehension skills, such reasons as exam anxiety and lack of interest into subjects covered may have a negative impact on students' reading attitudes. In other words, while reading comprehension skills are reflective of the cognitive domain, attitude is inherently affective. Competence in the cognitive sense is not necessarily indicative of

affective competence. When students are not provided with a proper education and training that address their needs or suffer from lack of support from the environment, they may lose their enthusiasm for reading.

The correlation analysis conducted in the current study revealed that the correlation between reading comprehension and reading attitude was higher and more meaningful in the nongifted group compared to that of the gifted. A study by Dretzke and Keniston (1989) conducted with a group of nongifted children showed that there was a positive correlation between reading comprehension strategies and reading attitudes. The higher one's reading attitude score is, the higher his/her reading comprehension is (Susar Kirmizi, 2011). Thames and Reeves (1994) found that children who have more positive reading attitudes comprehend better and read more. Kush and Watkins (1996), in the same vein, suggest that an increase in reading attitude positively contributes to children's academic achievement and reading comprehension and motivates them to read more.

In the current study, we did not observe any significant relationship between reading comprehension and reading attitudes for the gifted children while there was a significant relationship for the nongifted group. Regarding the gifted, the fact that they have intrinsic motivation, are not influenced by external conditions as much as the nongifted, and already possess advanced reading skills and enjoy higher reading comprehension (Sallabas and Ozcan, 2018; Sak, 2010, 2014) may explain the observed low correlation between reading comprehension and attitude to reading. The nongifted, on the other hand, may be more prone to external factors surrounding them, which can justify the high correlation observed for this group.

The reading comprehension and reading attitude average scores of the female and male students did not significantly differ in terms of gender for the gifted group, whereas there was a statistically significant difference in terms of gender in the nongifted group. The results indicate that the nongifted female students achieved higher scores in reading comprehension and reading attitude. In the study conducted by Karababa and Kaya (2018), which examined the relationship between gender and reading comprehension skills and level of using reading strategies according to gender, the authors found that the female students outperformed their male counterparts in utilizing reading strategies. Similarly, Stevenson and Newman (1986) also confirmed in their research that female students have better reading skills than male students. The findings of the earlier studies and the current one indicate that gender may be a determining factor both for the gifted and nongifted. The observed difference between the gifted and nongifted groups in the study may stem from certain environmental and individual factors.

Karatay (2007) conducted a research on supposedly nongifted prospective teachers in order to determine the variation of reading comprehension skills by gender. In that study, female prospective teachers showed higher reading comprehension. In another study conducted by Palavuzlar (2009) to determine the reading comprehension skills of supposedly nongifted 5th grade students, the female participants outperformed the males. Conversely, Özcan (2018) found no significant difference in reading comprehension skills in terms of gender. Excluding Özcan's (2018) research, which is counter to previous findings, it can be concluded that female students are more successful in reading comprehension, which may suggest that the female are innately more talented in linguistics. However, further research is needed to be able to confirm this claim.

No statistically significant difference was observed between the reading comprehension and reading attitude total average scores of the gifted participants regarding attendance to preschool

education while a statistically significant difference was found for the nongifted group. The results showed that reading comprehension and reading attitude total average scores of the nongifted who had pre-school education were higher. Inan (2007) states that preschool education helps children develop positive attitudes to learning process and overcome difficulties that may arise over time. Children attending preschool are more curious, more eager to read, and more willing to experiment. Similarly, Erkan and Kirca (2010) point out that pre-school education has an important impact upon school readiness. According to Grab (1998), reading is not only a process of extracting meaning from the text but also results in the activation of mental functions (cited by Çakıcı, 2011). Smith (1992) explains that individuals undergo a structuring process when they associate the concepts with each other, keep relevant and related concepts together and create clusters. These clusters are labelled as schemes, which reflect prior knowledge, experiences, conceptual insights, attitudes, values and skills the reader brings to the reading atmosphere (Cited by Çakıcı, 2011). The easier recently learnt information is associated with the schemes in the brain, the smoother the learning process becomes. That is, a person who has prior knowledge related to the concepts at hand can learn these concepts more easily (cited by Cakici, 2011). Considering that reading activity involves complex mental process, students can have a positive attitude towards reading with pre-school education and can develop concepts easily and comprehend what they read better.

The gifted participants allocating two or more hours to daily extracurricular reading activities exhibited higher reading comprehension skills. On the other hand, in the nongifted group, no statistically significant difference was found between reading attitude and time spent for reading as an extra-curricular activity. While no significant difference was found between time spent for reading as an extracurricular activity and reading comprehension in the nongifted group; we observed a statistically significant difference between the reading attitude and extracurricular reading activity duration for the same group. The results indicate that the reading attitude scores of the children who read for more than 2 hours were higher. Özcan (2018) conducted a study with 5th grade gifted and nongifted children to examine the relationship between reading comprehension skills and time spent for reading as an extracurricular activity. The author did not observe a significant correlation between reading comprehension skills and time spent for reading as an extracurricular activity. In his study, Smith (1992) found that gifted children allocate significantly more time to reading publications than their nongifted counterparts. In our literature review, we did not come across any studies other than Smith's that have examined the correlation between reading attitudes and time spent for reading as an extra-curricular activity.

The reason why we did not observe a significant difference between reading attitude and time spent for reading in the gifted group may be related to the fact that gifted children are already interested in reading at an early age. Also, our findings are not in line with those of Özcan's (2018), which may be related to the different characteristics of the participants. Further research is needed to reach generalizable conclusions and unearth the underlying factors that lead to such different findings. In addition, gifted children can better understand the subtleties of language, summarize paragraphs better, and make connections with what they read and their previous knowledge. In this context, it is expected that gifted children use language in an associative sense and can analyze paragraphs better and enjoy higher reading comprehension (Eber, 2014, cited in İlter, 2017). Furthermore, gifted children are more imaginative and employ their vast imagination effectively while reading, which may be another factor affecting their reading comprehension.

In one study carried out by Bozkurt (2013) in order to investigate the correlation between the reading comprehension skills of the nongifted and their families' frequency of book purchasing, the author found a significant correlation between these two variables. Rüzgar (2014) suggest that there is a positive correlation between reading comprehension skills and the book being read. When the findings of the current study are examined in the light of previous research, it can be suggested that the gifted's reading comprehension skills begin to develop after they acquire reading habits. However, our findings also indicate that an increase in the time allocated for reading does not necessarily lead to a change in reading attitude. Taken into consideration that advanced reading skills is one of the characteristics of gifted children that develop at early ages, it can be suggested that they already have positive attitudes towards reading. Compared to the gifted children, no change was observed in the reading comprehension skills of the nongifted while their reading attitude scores increased by the increase in their involvement in reading.

The current study has certain key implications for both further studies focused on the gifted and nongifted and design and implementation of educational practices. As language is the most important communication tool in the education process and reading skill is also among receptive language skills, it can be claimed that it functions as a cornerstone in designing and implementing educational and instructional practices. When designing and implementing macro level educational policies, developing curricula, teaching and supporting students' educational processes, it is of utmost importance that practitioners, planners, policy makers and families are well informed about the importance of reading comprehension and reading attitude. Therefore, the results obtained in this study are of interest to researchers, teachers, students and parents. However, considering the limitations of the current study, there is a need for further longitudinal and experimental research that will enable an in-depth examination of the findings of these and earlier research findings.

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## **Etik Bevannamesi**

Bu makalede "Yükseköğretim Kurumları Bilimsel Araştırma ve Yayın Etiği Yönergesi" kapsamında belirtilen bütün kurallara uyduğumuzu, "Bilimsel Araştırma ve Yayın Etiğine Aykırı Eylemler" başlığı altında belirtilen eylemlerden hiçbirini gerçekleştirmediğimizi, hiçbir çıkar çatışmasının olmadığını ve oluşabilecek her türlü etik ihlalinde sorumluluğun makale yazarlarına ait olduğunu beyan ederiz.

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