

## The Relationship Between Environmental Factors and Reading Comprehension

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### Abstract

This study aimed to determine the relationship between environmental factors and elementary-school fourth-grade students' reading comprehension levels. In the research, the relational scanning model, one of the quantitative research methods, was applied. The research was conducted in Ankara in the 2019-2020 and 2020-2021 academic years. The research group consisted of 365 fourth-grade students, 365 parents, and 11 classroom teachers who taught these students. The Reading Comprehension Scale, the Family Effectiveness Scale for Creating a Reading Culture, and the Teacher Effectiveness Scale for Reading were used for data collection. ANOVA, t-test, frequency, and percentage values were applied for analysis. As a result of the findings, it was seen that there was a significant relationship between family income level and reading comprehension, and that the reading comprehension scores of the students in the upper-income group differed significantly from those in the middle and lower groups. It was determined that the average comprehension of the students whose parents had an undergraduate or higher education level was significantly higher. Gender was significantly correlated in favor of the female students. It was observed that the type of school the students attended made a significant difference in favor of the students attending a private school. It was determined that the activities performed by the teachers with regard to reading comprehension did not make a significant difference to their reading comprehension average scores. As a result, the data will shed new light on future studies that will contribute to research regarding reading comprehension.

**Keywords:** Reading Comprehension, Family, Teacher, School Type

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## INTRODUCTION

Despite the rapid technological developments in today's world, the act of reading is still the most basic and effective tool for obtaining information (Coskun, 2002). Until a few centuries ago, reading and writing enough to be able to read religious texts, write one's name and surname and conduct daily activities was sufficient for most people. However, the situation has changed in our age, and it is much more important to have and be able to use in-depth reading skills. Because the quality and quantity of written documents encountered have increased, it has become more difficult for the individual to filter the information he/she needs and to make sense of it. Definitions of what reading is have also changed as the quality and quantity of studies have increased. According to the behaviorist approach, which primarily functioned under the influence of early 1900s education, reading is seen to be a one-way flow of information between the written text and the reader. However, over time, in line with the studies of scientists such as Piaget and Vygotsky, the idea of what reading actually is also changed. The idea that reading has many sociological, psychological and anthropological origins has begun to be accepted, as can be seen in how it has been defined. One of the first comprehensive definitions of reading belongs to Rosenblatt (1982). It states that reading is a two-way process between reader and the text that occurs at a specific time and under certain conditions. Demirel and Sahinel (2006), on the other hand, defined the concept of reading as how the individual makes sense of written symbols, and how writing is transformed into sound. According to many other definitions, reading is a process that both consists of the vocalization of words and also requires the reader to understand the meaning of the text that has been read (Akyol, 2005; Gunes, 2004).

When the first studies on "reading comprehension," which is thought to be the natural result of reading, are examined, it is seen that correct and fluent reading are the main predictors of comprehension (Sen & Baz, 2018). However, with the acceleration of the studies and the increasing diversity of social structures, new models and theories have begun to develop. As a result, the idea of "reading comprehension" has become a more complex structure in which many factors interact (Pearson, 2009). Looking at the stages in which reading is taught, while the primary purpose in the first years of school is that individuals gain reading skills, this differs from the fourth year of study, and reading becomes a tool through which the student is able to attain other goals. In other words, the new goal of the student is not "to learn to read", but rather "to read to learn" (Vacca, Vacca, Gove, Burkey, Lenhart, & Mckee, 2006). Accordingly, the quality of the student's reading should increase and they should reach the level of the "ideal reader" before reaching the fourth year of study. Wolf and Katzir-Cohen (2001) describe reaching "ideal readership" as the purpose of reading and suggest that it means understanding the text in the best way possible. If students who are exposed to intensive, informative texts at the fourth-grade level are not adequately equipped to read them, they are faced with the situation called "fourth-grade destruction" (Chall & Jacobs, 2003). Students with high academic achievement until the fourth grade may begin to experience difficulties in this period in parallel with not understanding what they are reading.

The concept of reading comprehension is often perceived as a skill that can be determined using the simple "5W1H" method (Who? What? Where? When? Why? How?) questions. However, Smith (2013), inspired by the Bloom taxonomy, suggests four other steps related to reading comprehension:

1. Memorizing the readings literally
2. Inference and interpretation from the readings
3. Applying readings and creating new products
4. Critically interpreting what is read

With regard to this taxonomy, while those who have finished elementary school are expected to have achieved these stages, Lewin (2005) found in his research that 65% of students had difficulty

understanding complex texts even at university level. Students' inability to understand what they have read has been the subject of discussion among educators worldwide. In Turkey, as all around the world, the importance of reading is especially emphasized in the elementary education program, and efforts have been made to solve the problem. However, it can also be clearly seen in international exams that Turkish students' reading comprehension levels are insufficient. The fact that reading comprehension skills are not at the desired level has led researchers to examine the reasons for this. When this situation is examined in the context of the literature, it brings the following questions to mind: "Do factors such as the student, family, teacher have a relationship with reading comprehension? If there is a relationship, which variables have an effect and at what rate?" To find the answers to these questions, considering the factors as a whole and revealing the relationship between them will contribute to studies which aim to increase the level of reading comprehension in Turkey. Reading comprehension is an ability that has many sub-skills and factors and works appropriately if each of these components functions appropriately. Failure in any of these factors negatively affects the level of reading comprehension of the individual.

One of the concepts mentioned in the literature that has a close relationship with reading comprehension is that of "family." For instance, the Coleman Report about the effectiveness of the family, which was published in the USA caused many discussions (Aslanargun, 2007). The report found that one factor affecting the student's academic success more than the school was the family environment the child is in. This was followed by individual differences, peer influence and teacher influence, respectively. In another study, the Children's Foundation (2006) obtained the following results, which were detailed in "Reading Habits Report for Turkey":

The three periods (in order of importance) in which reading habits are developed are

- 1) Childhood
- 2) Youth
- 3) Adulthood

Three institutions that are effective in helping individuals gain the habit of reading were (in order of importance):

- 1) Family
- 2) School
- 3) The environment

When the results of the report are examined, it is observed that the family and childhood are of primary importance in whether individuals acquire the habit of reading. In a study conducted by the Ministry of Education Research and Development Department (2007) to determine the reading levels of students, it was concluded that if a child's family does not see buying books and reading as a priority, then the time the child spends reading books is also minimal. In addition, it was determined that suggesting to a student who had grown up in such an environment that they should read, whether the suggestion came from their family, environment, or teacher, did not positively affect the child.

Another factor that has a close relationship with reading comprehension is the teacher. Two primary components have been identified, primarily in studies on mother-tongue teaching. The first is the teachers who teach the mother tongue, and the second is the teaching methods that are used for language teaching (Asici, 1996 cited in Erdogan & Gok, 2008). In the first years of school, classroom teachers are the individuals whom the student most identifies and seeks to model. In this respect, if the teacher attaches importance to reading, the student will observe this and try to engage in the habit of reading in their own life. Praise or appreciation from the teacher when students read a book will also

be effective in their developing a positive attitude towards reading (Bamberger, 1990). For instance, Arici (2005) gathered the views of 2000 students in a study to determine the reading status of secondary school students, and 57.3% of the students stated that their reading habits were formed as a result of their teachers. In another study, Tok and Beyazit (2007), in their study to examine the effect of the taught summarization and note-taking strategies on the reading comprehension level of third-year students, found that students who were taught reading strategies by their teachers significantly increased their reading comprehension levels and learning retention. Yildirim (2012), using a model which was developed to compare the 2009 PISA results in the Netherlands, Korea and Turkey, determined that, for all three countries, students' awareness of reading strategies and their use affected reading comprehension. In addition, it was discovered that teachers' behaviors that promoted reading comprehension, and preparing a suitable environment for reading comprehension, increased the positive effect.

Although reading comprehension is a process that can only be monitored by measuring the student's performance, the development of this skill is affected by the teacher, the family, or the environment the child belongs to. Consequently, to solve the problem of "not understanding what you read," the factors related to reading comprehension should be determined in detail, placed in order of importance, and efforts should be made to promote this by taking into account the relevant components: the family, the school and the student. However, studies have revealed these activities in Turkey are not at a sufficient level. Data indicating which variables are related to each other, and to what extent or how they affect each other are limited or disconnected. Previous studies were examined to see how they had handled this issue. As a result, the current study aimed to determine the variables related to reading comprehension and the degree of relationship between them.

## METHOD

Since this study aims to determine variables that affect elementary-school fourth-grade students' reading comprehension levels, the research was descriptive and designed to use the relational survey model. While the aim was to examine a situation that existed in the past or present, it is possible to describe the same situation comprehensively, comparatively, and correlationally in the relational survey model (Karasar, 2002).

The purposeful sampling method was applied to determine the sample. In this method, the researcher determines their sample by choosing from the population in line with their purpose. In order that the data obtained in the study be suitable for generalization and reflect the general student population in Turkey, an effort was made to include various socioeconomic and socio-cultural groups. The research group consists of fourth-year students studying in two public schools and three private schools in Ankara, as well as the students' families and their teachers. In collecting data from fourth-year students, it was assumed that the students at this level had fluent reading skills, and that their reading comprehension level had started to increase. It was possible to use several strategies (Veenman, Hout Wolters, & Afflerbach, 2006).

The demographic characteristics of the students participating in the application are given in Table 1.

**Table 1. Demographic Characteristics of the Students Included in the Application**

Variable	Categories	N	%
Gender	Female	189	51.8
	Male	176	48.2
	Total	365	100.0
School	State	309	84.7
	Private	56	15.3
	Total	365	100.0

According to Table 1, 51.8% of the students participating in the study were girls (189) and 48.2% were boys (176). When the type of school the students attended is examined, it can be determined that 84.7% of them were at public schools (309), while 15.3% were at private school (56).

**Table 2. Demographic Characteristics of Parents Included in the Study**

Variable	Categories	N	%
Financial status	Lower	89	24.4
	Middle	162	44.4
	Upper	114	31.2
Mother's Level of Education	Elementary School	36	9.9
	Middle School	106	29.0
	High School	169	46.3
	Undergraduate	54	14.8
Father's Level of Education	Elementary School	8	2.2
	Middle School	50	13.7
	High School	215	58.9
	Undergraduate	92	25.2
Total		365	100

As seen in Table 2, 365 parents participated in the study. When the students' economic status was examined, there were 24.4% in the lower, 44.4% in the middle, and 31.2% in the upper economic bracket. When the mother's education level was examined, it was determined that the least common group was those with only an elementary-school education with 9.9%, while the most common level of education was a high-school education with 46.3%. When the father's education level was examined, the least frequent was an elementary-school education with 2.2%. The most common education level was a high-school education with 58.9%.

**Table 3. Schools Where the Data Was Collected From**

School Name	School Type	N	%
A Elementary School	State	267	73.15
B Elementary School	State	42	11.5
A College	Private	25	6.84
B College	Private	16	4.38
C College	Private	15	4.10

When Table 3 is examined, it can be seen that 84.6% of the students in the research group were being educated in two different public schools, while 15.34% went to three private schools.

**Table 4. Demographic Characteristics of Teachers**

Variable	Category	N	%
Gender	Female	9	81.81
	Male	2	18.18
Educational Status	Associate Degree	2	18.8
	Undergraduate	7	63.63
	Postgraduate	2	18.8
Professional Experience	1-5 years	0	0
	6-10 years	2	18.18
	11-20 Years	6	54.54
	Over 20 years	4	36.36
Employed Institution	Government Agency	8	72.72
	Private Institution	3	27.27
Total		11	100

81.81% of the 11 teachers participating in the study were female, while 18.18% were male. 63.63% of the teachers had an undergraduate degree. 54.54% of the teachers participating in the research had professional experience of between 11 and 20 years. 27.27% of the teachers worked in private institutions, while 72.72% worked in public schools.

The study data were collected using the Reading Comprehension Scale, the Teacher Effectiveness towards Reading Scale, and the Scale of Family Competence in Forming a Reading Culture. Information regarding the validity and reliability of the scales is as follows:

**Reading Comprehension Scale:** Kaya, Dogan and Yildirim (2018) worked with 348 students from different socioeconomic levels in the central districts of Denizli who were in the fourth grade at three elementary schools. The data obtained were transferred to the SPSS 20 package program, and statistical calculations were made. As a result of the analyses performed for the reading comprehension test developed in this study, the discrimination indices of the items in the test varied between .26 and .52. Item difficulties, on the other hand, ranged from .42 to .95. The KR20 reliability coefficient for the whole test was .83. A 32-question test consisting of a fable and a narrative text and 16 questions related to these texts, as well as three informational texts, and 16 questions related to these texts, was created. In line with these results, it can be assumed that the test is valid and reliable.

**The Scale for Determining Family Participation in Reading: The Scale for the Effect of the Family in Creating Reading Culture** was developed (Cigdemir & Akyol, 2020) to determine the effect of the family on reading comprehension. As a result of exploratory and confirmatory factor analyses, a scale with 19 items and four factors, and with a reliability rate of .86, was obtained.

**Teacher Effectiveness Scale in Creating Reading Culture:** The scale was developed by Cigdemir, Sel and Coskun (2020). The Cronbach's  $\alpha$  internal consistency coefficient value obtained from the total of the scale was .89. The scale consists of 17 items and four factors. The highest score obtainable from the scale is 85, while the lowest score is 17.

## FINDINGS

ANOVA and independent samples t-test were conducted to determine whether the variables in the study showed a significant change at a level of .05 with regard to reading comprehension. For the data set to show a parametric structure, it must be homogeneous and lead to a normal distribution (Buyukozturk, 2012). The reading comprehension achievement scores in patients with relational anesthesia were examined to assess whether they were normally distributed according to the independent variables. It was observed that the skewness and kurtosis values of the scores of the independent variables varied between -1 and +1. According to George and Mallery (2014), skewness and kurtosis values between -2 and +2 indicate that data is normally distributed. The homogeneity of the scores of the independent variables was checked with the Levene Test. It was observed that the p-value obtained from each Levene Test was greater than .05. As a result, it was seen that the data showed normal distribution and was suitable for the use of parametric tests.

Descriptive statistics of the reading comprehension scores of the students participating in the study are shown in Table 4.

**Table 4: Descriptive Statistics of Reading Comprehension Scores**

	N	X	SS	Min	Max
Reading Comprehension	365	.74	.21	.20	1.18

The table shows that the students' highest score from the scale was 1.18, the lowest score was .20, and their reading comprehension average was  $X = .74$ .

T-test results for determining whether the level of reading comprehension differed according to gender are given in Table 5 to explain the relationship between reading comprehension level and gender.

**Table 5: T-test Results for the Comparison of Reading Comprehension Level by Gender**

Gender	N	X	SS	F	P
Male	176	.70	.22	1.25	.01
Female	189	.78	.20		

When Table 5 is examined, it is seen that female students' reading comprehension average was  $X = .78$ , while the male students' average was  $X = .70$ . When the students' reading comprehension levels were compared, it was seen that there was a significant difference in favor of girls ( $t_{(363)}=3.30$ ,  $p < .05$ ).

Table 6 shows the standard deviation and mean scores of the distribution of students' reading comprehension levels according to their families' education levels before analyses carried out to determine the relationship between the level of reading comprehension and the level of parental education.

**Table 6: Average and Standard Deviation Scores for Determining Reading Comprehension Level According to Parents' Education Level**

	Level of Education	N	X	SS
Mother's Education Status	Elementary School	36	.61	.14
	Middle School	106	.73	.18
	High School	169	.74	.16
	Undergraduate	54	.86	.10
Father's Education Status	Elementary School	8	.68	.25
	Middle School	50	.68	.23
	High School	215	.72	.21
	Undergraduate	92	.84	.18

When the students' reading comprehension levels were examined according to the mother's education level, it was determined that the highest average was at the undergraduate level ( $X = .86$ ), and the lowest average was at the elementary school level ( $X = .61$ ).

When the reading comprehension levels of the students were examined according to the education level of their fathers, the highest average was at the undergraduate level ( $X = .84$ ), and the lowest average were at the elementary school ( $X = .68$ ) and the secondary school levels ( $X = .68$ ).

The differentiation of the students' reading comprehension levels according to the family's education level is shown in Table 7.

**Table 7: ANOVA Test for the Effect of Family Education Level on Reading Comprehension**

	Source of Variance	Sum of Squares	Sd	Mean Squares	F	P
Mother's Education Status	Intergroup	1.401	3	.46	10.69	.00
	In-groups	15.579	361	.04		
	Total	17.160	364			
Father's Education Status	Intergroup	1.190	3	.39	8.96	.00
	In-groups	15.970	361	.04		
	Total	17.160	364			

When Table 7 is examined, it is seen that there was a significant difference between the reading comprehension scores of the students according to the education level of their mothers ( $F_{(3-364)}=10.69$ ;  $p < .05$ ). According to the results of the Tukey test conducted to find out in which groups this difference was, the reading comprehension scores of the students whose mothers had undergraduate degrees ( $x = .86$ ) differed significantly compared to those whose mothers were elementary school ( $x = .61$ ), middle school ( $x = .73$ ) and high school ( $x = .74$ ) graduates.

There was a significant difference between the reading comprehension scores of the students according to the education level of their fathers ( $F_{(3-364)}=8.96$ ;  $p < .05$ ). According to the results of the Tukey test conducted to find out between which groups this difference was, the reading comprehension scores of students whose fathers had undergraduate degrees ( $x = .84$ ) differed significantly from those whose fathers were elementary school ( $x = .68$ ) and secondary school ( $x = .68$ ) graduates.

Standards were established to assess income groups in order to determine the relationship between reading comprehension and family income. In determining these standards, the 2019 report of the Turkish Trade Unions Federation was adopted. According to this report, the "hunger limit" for a family of four is 2,014 TL while the poverty line is 6,561 TL (Turkish Federation of Workers' Unions, 2019). On the basis of the report, the data were divided into three income groups: less than 2,000 TL (lower group), 2,000-6,000 TL (middle group), and over 6,000 TL (upper group). The standard deviation and average scores of the distribution of students' reading comprehension levels according to the economic level of their families, are given in Table 8.

**Table 8: Average and Standard Deviation Scores for the Effect of Economic Status on Reading Comprehension**

	Financial Status	N	X	SS
Reading Comprehension	Lower	89	.60	.20
	Middle	162	.76	.20
	Upper	114	.82	.19

When the distribution of the students' reading comprehension levels was examined according to family income, it was determined that the highest score was for those in the upper-income level ( $X = .82$ ), while the lowest score was for those at the lower-income level ( $X = .60$ ).

The differentiation of students' reading comprehension levels according to family income is shown in Table 9.

**Table 9: Students' Reading Comprehension Scores and Family's Economic Level**

	Source of Variance	Sum of Squares	Sd	Sum of Squares	F	P
Reading Comprehension	Intergroup	2.73	2	1.36		
	In-groups	14.430	362	.04	34.24	.00
	Total	17.160	364			

According to the results of the ANOVA, the reading comprehension levels of the students differed significantly according to their family's income ( $F_{(2-364)}= 34.24$ ;  $p < .05$ ). According to the results of the Tukey test conducted to find out which groups this difference was between, the scores of the upper-income group ( $x = .82$ ), the middle-income group ( $x = .76$ ), and the lower-income group ( $x = .60$ ) differed significantly from each other.

As a result of the scale applied to measure the effectiveness of teachers in reading comprehension, the scores of 11 teachers were classified into four different groups. The classification was based on the closeness of the teachers' scores to each other. The groups created were as follows:



- 47-48 points
- 56-58 points
- 61-64 points
- 68 points

"What is the relationship between reading comprehension and the teachers' effectiveness in reading comprehension?" The descriptive statistics obtained from the analyses carried out to find the answer to this question are shown in the table.

**Table 10: Average and Standard Deviation Scores for the Effect of Teacher Effectiveness on Reading Comprehension**

Teachers' Effectiveness Score for Reading	Students' Reading Comprehension Scores		
	N	X	SS
47-48 points	46	.75	.20
56-58 points	110	.75	.23
61-64 points	130	.71	.21
68 points	79	.77	.20
Total	365	.74	.21

When the distribution of reading comprehension levels according to the effectiveness of the teachers with regard reading is examined, it is seen that the students of teachers with the highest reading comprehension average ( $X = .77$ ) had the highest reading comprehension scores (68 points). The lowest reading comprehension average score ( $X = .71$ ) belonged to the students whose teachers' reading scores ranged between 61 and 64.

**Table 11: Comparison of Students' Reading Comprehension Levels According to Teacher Effectiveness**

	Source of Variance	Sum of Squares	Sd	Sum of Squares	F	P
Reading Comprehension	Intergroup	.18	3	.06	1,30	.27
	In-groups	16.97	361	.04		
	Total	17.16	364			

According to the results of ANOVA, the student's reading comprehension levels did not differ significantly according to the teacher's effectiveness with regard to reading comprehension ( $F_{(2-364)} = 1.30$ ;  $p > .05$ ).

A t-test was first conducted to determine whether the level of reading comprehension differed according to the kind of school in order to determine the distribution and differentiation of the level of reading comprehension by school type.

**Table 12: T-test Results for Comparison of Reading Comprehension Level by School Type**

School Type	N	X	SS	F	P
State	309	.73	.21	2.00	.00
Private	56	.82	.19		

When Table 12 is examined, it is seen that the mean reading comprehension of the students attending public schools was  $X = .73$ , while the reading comprehension score of the students attending

private schools was  $X = .82$ . When the students' reading comprehension levels were compared, it was seen that there was a significant difference in favor of private schools ( $t_{(363)}=2,00$ ;  $p < .05$ ).

## DISCUSSION, CONCLUSION AND RECOMMENDATIONS

When the distribution of students' reading comprehension levels by gender was examined, the reading comprehension mean score of the girls was significantly higher than that of the boys ( $t_{(363)}=3.30$ ;  $p < .05$ ). The findings obtained in the present study are supported in the literature.

Basaran and Ates (2009) worked with 601 fifth-grade elementary-school students to examine their attitudes towards reading. They found that female students had more positive attitudes towards reading than male students. A positive attitude had a moderate positive relationship to academic achievement in Turkish courses. Ceran, Yildiz and Ozdemir (2015) worked with 156 students to examine the reading comprehension skills of second-grade elementary-school students according to gender and age. Their analyses found a significant difference in favor of girls in the level of reading comprehension. Ciftci and Temizyurek (2008) examined elementary-school fifth-grade students' acquisitions related to reading comprehension in the Turkish Language Teaching Program according to socioeconomic status and the gender of the students. They found that the female students were more successful than the male students. Sallabas (2008) stated that, as a result of the study examining the relationship between eighth-grade students' attitudes towards reading and their reading comprehension skills, the gender of the student made a significant difference in reading comprehension, and this situation was in favor of female students.

When the literature is examined, it is seen that female students are more successful than male students in language skills such as reading comprehension. While some researchers attribute this situation to the social environment of girls, in which they tend to spend more time at home, and also to the type of games they play (Sidekli, 2006), some researchers attribute this to physical maturation, arguing that the early physical maturation of girls also involves mental maturation (Akyol, 2005; Gunes, 1997).

In the analyses conducted to examine teacher effectiveness, which is considered one of the environmental factors affecting reading comprehension, there was no significant relationship between the teacher's reading performance and reading comprehension.

In their 2016 study, which supports the current finding, Toksun and Toprak determined the methods and techniques adopted by Turkish teachers to help students gain literacy skills. They found that teachers did not achieve sufficient success in reading. Ince (2012) determined that most teachers believed in the necessity of reading comprehension strategies in a study to determine the reading comprehension strategies used by classroom teachers in Turkish lessons. However, it was also found that the texts in the textbook were unsuitable for applying these strategies, that class sizes were too great for the practices to be successful, and that there was insufficient time, so teachers did not use the reading comprehension strategies. In another study, Tok and Beyazit (2007) determined that the summarization and note-taking strategies taught significantly affected reading comprehension levels and learning permanence. This result contradicts the findings of the present study. As a result of the study conducted by Baydık (2011) to examine the teaching of students who had difficulty in reading and teaching of teachers to understand what they read, it was determined that students with reading difficulties are generally inadequate in terms of identifying the main idea, establishing a cause-effect relationship, remembering details, and making inferences from the text. It was determined that the teachers only infrequently taught by using the strategies of activating prior knowledge and learning with peers.

In the current study, one of the variables affecting reading comprehension was the type of school the student attended. There was a significant relationship between reading comprehension and the type of school the student attended ( $t_{(363)}=2,00$ ;  $p < .05$ ). It was observed that the reading

comprehension level of the students attending private schools was higher than that of students studying in public schools.

Arslan (2005), as a result of the experimental study conducted with the second-grade students in an elementary school, discovered that the students at a lower socioeconomic level had slower reading speeds than those in other groups, while the students in the upper socioeconomic group had more minor reading difficulties compared to the other groups. Celenk and Caliskan (2004) found that children from high-income families had higher reading comprehension levels than children from low-income families in their study examining socioeconomic factors on reading comprehension. Gundemir (2002) stated that different socioeconomic levels in the region where the schools were located affected the level of reading comprehension. Sancı (2002) determined that the reading motivation of the students in the lower group in terms of social, economic and cultural status differed significantly from the middle and upper groups, as a result of his study to examine the effect of these aspects on the reading motivation of sixth-grade students. The study by Cokgezen and Terzi (2013) on the research results published by CITO in 2007 is in line with the results of the current study. A total of 57 schools and 11,575 students were examined in the study conducted by CITO, one of the leading global measurement and evaluation systems, to investigate the education quality of private and public schools. The results for listening comprehension and reading comprehension are particularly noteworthy in the study, which discussed various different skills: according to the research, 24% of the students in public schools and 64% of the students in private schools were able to develop listening comprehension skills by the end of the first grade, and this gap widened even more after the second grade. In terms of reading comprehension, it was determined that although public schools were more successful in the first grade, private schools had the upper hand in the second grade. Balcı, Uyar and Büyükkiz (2012), on the other hand, concluded in their study that socioeconomic environment does not have a significant effect on attitudes towards reading. This is a result that contradicts the findings of the present study.

Another result obtained from the present study is that the students' reading comprehension scores differed significantly according to the education level of their parents, and it was observed that the reading comprehension scores of the students increased as the education level of the parents increases. There are studies in the literature that support these findings.

Basturk (2013), as a result of his study to examine the effect of the family in Turkish culture on students' readiness to become readers, determined that the education level of the mother was directly related to the language skills of the child. In another study, Vural (2007) found that as the education level of the family increased, so its participation in the first literacy activities of their child also increases. Taşkın and Aygün (2017) found that there was no significant difference between students in terms of academic reading according to the educational status of their parents. However, in the case of reading for fun, it was determined that the education level of the father made a significant difference in favor of those whose fathers were high-school graduates. Taşkesenlioğlu (2015) determined that there was a relationship between the education level of the parents and the reading culture of the children, and that the reading speed of the student increased as the education level of the parents increased. Sert (2010) found a significant relationship between the education level of parents and the reading comprehension score as a result of his study examining the reading comprehension levels of sixth-grade students in terms of a number of variables.

In the current study, it was determined that the reading comprehension levels of the students differed significantly according to the family income status, namely that the reading comprehension scores increased as the income level increased. Other research supports this finding. Kartal, Çalar and Özteke (2010), as a result of the study they carried out to determine the reading comprehension levels and expressive abilities of elementary school students, found that the students in the lower socioeconomic groups in particular could not answer most of the questions in a comprehension test. Akyol (2011) found that students with a good socioeconomic status had better critical reading skills as a result of his study to examine the adequacy of the elementary-school second-grade Turkish curriculum in terms of teaching critical reading skills. Cheng and Wu (2017), in their study examining

the relationship between socioeconomic environment and reading comprehension, concluded that the socioeconomic level has an indirect effect on reading comprehension, and that students from higher socioeconomic groups had larger vocabularies.

The results of the current research can be summarized as follows:

With regard to elementary-school fourth-grade students' reading comprehension average scores, the female students had significantly higher scores than the male students.

The education level of both parents made a significant difference in the students' reading comprehension scores.

The economic level of the family made a significant difference to the students' reading comprehension scores. The reading comprehension average score of the students in the upper-income group was higher than the scores of the middle- and lower-income groups. The middle-income group had a higher score than the lower-income group.

Teachers' effectiveness with regard to reading did not make a significant difference to the reading comprehension score.

The type of school attended significantly affected the students' reading comprehension score. The reading comprehension scores of the students attending private schools were higher than those of students attending public schools.

There was a significant relationship the parental education level and the influence of the family in creating a reading culture. As the mother's education level increased, the activities engaged in and the contribution of the mother towards her child's reading increased. Among fathers, the highest participation in reading was achieved by those fathers with a bachelor's degree, followed by the fathers who were elementary-school graduates.

There was a significant relationship between the family's economic level and their contribution towards creating a reading culture. As the income level of the family increased, the reading activities of the student also increased.

An important finding of the study was that there was no significant relationship between the teachers' reading activities and the students' reading comprehension scores. It is remarkable to find in the literature that the activities of the teacher, which are one of the most critical components of education, are not necessarily effective. This situation can be attributed to many reasons. However, existing teachers must increase their competence, reading strategies should be taught to teacher candidates, as well as the ability to choose suitable and relevant books and ask the right questions. Any deficiencies in these areas in existing teachers should be addressed through in-service training.

Another significant result of the current study was that the students in private schools had higher comprehension scores than those in public schools. One of the main reasons for the difference between public and private schools is the excessive class sizes in public schools. While there was an average of 40 students per teacher in the state schools where the study was conducted, the average in the private schools was around 15 students. In such an environment, students' cognitive and affective skills will inevitably be affected. The fact that the teacher's activities did not affect the students' understanding, which was one of the research results, may be associated with the overcrowding in the classes. The teacher's effectiveness will inevitably decrease when the time allocated to each student in large classes is smaller than in a private school. Eliminating this inequality of opportunity in education and training activities will be a practical step in solving one of the fundamental problems in education: the lack of understanding of what is read.

It was found that economic status had a positive relationship to reading comprehension. As in recent years, social initiatives such as access to resources, and free, additional courses to address specific needs should be continued in order to incrementally eliminate this negative situation and offer equal opportunities in education to students from different socioeconomic backgrounds.

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