



INVESTIGATION OF THE RELATIONSHIP BETWEEN PRIMARY SCHOOL STUDENTS' READING AND WRITING ANXIETY

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Abstract

This research examines the relationship between reading and writing anxiety of primary school fourth-grade students according to different variables. In this context, the research was carried out with the correlational research model, one of the quantitative research methods. The sample of the study consists of 402 students determined by convenient sampling. The data were collected using the Personal Information Form consisting of demographic variables, the Reading Anxiety Scale used to determine students' reading anxiety, and the Writing Anxiety Scale used to measure students' writing anxiety. SPSS 24 statistical software was used in the analysis of the data. In line with the purpose of the research, a t-test for gender ANOVA was used for parental education levels. Relationships between reading and writing anxiety were analyzed using Pearson Product-Moment correlation analysis and hierarchical regression analysis. In the findings obtained, it was determined that the student's reading and writing anxiety were moderate, there was a difference in reading anxiety according to gender, and education level of the parents, and a difference in writing anxiety according to the education level of the parents. It was determined that there was a positive and highly significant relationship between reading and writing anxiety. In addition, there is a significant predictiveness of reading anxiety in students' writing anxiety.

Keywords: Reading, writing, anxiety, predictiveness, primary school students.

INTRODUCTION

The four basic language skills are speaking, listening, reading, and writing. While reading is a language skill related to comprehension, writing is a telling skill. Reading and writing impact students' academic success and their future lives. Fellows (1994) states that in education, students learn more permanently by writing. Writing is a cognitive skill used to transfer feelings to others, explain thoughts, and take notes (Sofia et al., 2020; Turkben, 2021). Conversely, reading is a dynamic process of following the texts according to the rules, analyzing, and making sense of what you read (Akyol, 2020; Turkben, 2019). These features seem to emphasize the cognitive aspects of reading and writing. However, since reading and writing are cognitive, they were also included in affective features. One of these characteristics is anxiety.

Anxiety is defined as nervousness, fear of being evaluated, blood pressure changes, and worry in psychology (Piniel & Csizer, 2013). Everyone has experienced anxiety at least once in their life. Anxiety, frequently seen in students, can negatively affect their learning (Rasuan & Wati, 2020). Although the level of anxiety varies due to individual differences and environmental conditions, it is normal to experience anxiety. However, it is important to note that the anxiety level must be balanced.

When the level of anxiety, which has two types, constructive anxiety and debilitating anxiety (Scarcella & Oxford, 1992), is high or continues to rise, it can cause the individual to have problems in their work and avoid work. In this respect, as long as debilitating anxiety continues, it can negatively affect a person's life. Constructive anxiety, on the other hand, is a positive feature that activates the person, and enables him to concentrate and remember to complete his task when necessary (Melanlıoğlu, 2014). In fact, it is stated in psychology that this anxiety level should be placed in the individual. As there are



many situations where anxiety is experienced, anxiety can also be experienced in reading and writing skills.

Reading anxiety can be defined simply as a negative reaction to the act of reading. Having problems in gaining the habit of reading and developing this acquisition is also explained as reading anxiety (Dursun, 2018; Melanlıoğlu, 2014). Reading anxiety also negatively affects reading comprehension. It was determined that the reading comprehension levels of students increase with reading anxiety decrease (Altunkaya, 2017; Kuşdemir & Katrancı, 2016; Yamaç & Çeliktürk Sezgin, 2018). In addition, reading anxiety prevents the acquisition of reading habits (Melanlıoğlu, 2014). It can also negatively affect writing anxiety, which is another language skill.

Writing anxiety can be defined as the students' reaction to writing, as well as an effective feature that describes the anxiety situations accompanied by reactions such as sweating, avoidance of writing, and negative evaluations experienced by the student while performing a specific writing task (Daly & Miller, 1975; Sabti et al., 2019; Zorbaz, 2011). Writing is the most difficult and complex skill among language skills (Demirel, 1999; Kasi & Jayapalan, 2021). In research, it has been determined that students prefer test-type exams instead of written exams, students have difficulties in the writing process and avoid writing (Erdoğan et al., 2017; Kasi & Jayapalan, 2021; Tekşan & Söğümlü, 2018). Therefore, it is expected that such students experience writing anxiety. Sun and Fan (2022) emphasized that as writing anxiety decreases, writing performance increases and draws attention to the negative effect of anxiety on the writing process.

The relationship between reading and writing suggests that the anxiety experienced in reading may also be effective in writing. A strong vocabulary and making sense of information by reading play a role in the basis of good writing. Reading is a preliminary preparation for the writing process. Thanks to reading, students can write the information they have learned by taking the texts they read as an example (Yaman, 2010). As reading anxiety decreases as the students read (Tekdemir, 2019; Yıldız & Ceyhan, 2016), this decrease can also be seen in writing anxiety. Bozgün (2022) concluded that reading effectively reduces writing anxiety in fourth- and fourth-grade primary school students.

Reading and writing are two basic language skills that cannot be considered separately. As students develop their reading skills, they actually master their writing skills. Slavin (2015) emphasized the close relationship between reading and writing, stating that the vocabulary of children who read and write develops rapidly, reflecting these words to their social relations and contributing to their social development at the same time. This emphasis indicates that writing, reading, and writing can also play a role in learning and academic success. However, emotional processes such as motivation, anxiety, attitude, and self-efficacy play a role, as well as cognitive processes in reading and writing (Uçgun, 2016), requires the examination of the emotional characteristics of these skills.

In the literature, there are many studies examining the reading and writing anxiety of primary school students (Altunkaya, 2017; Bozgün, 2022; Çeliktürk & Yamaç, 2015; Katrancı & Temel, 2018; Kuşdemir & Katrancı, 2016; Temel & Katrancı, 2019; Turkben, 2021; Yamaç & Çeliktürk Sezgin, 2018; Yıldız & Ceyhan, 2010). In these studies, two skills were also examined according to different variables such as gender, mother's education level, father's education level, and the number of books read. In addition, in some studies, reading and writing concerns were handled separately, while in some studies, they were used to develop measurement tools. However, due to the cumulative progress of studies in reading and writing, re-examining reading and writing anxiety using demographic variables is worth investigating. In particular, the limited number of studies that determine the predictive role of reading and writing anxiety in the literature shows that this study will contribute to the literature.

The problem of this research is to question the predictor of reading anxiety in primary school fourth-grade students' writing anxiety by using different personal variables. This study aims to examine the relationship between reading and writing anxiety of primary school fourth-grade students by determining the predictor of reading anxiety in writing anxiety. In the sub-purpose of the study, the



differences in anxiety states according to gender, mother's education level, and father's education level were examined. In this direction, the sub-problems of the research were formed as follows:

- What are primary school fourth-grade students' reading and writing average anxiety scores levels?
- Do reading and writing anxiety differ by gender?
- Do reading and writing anxiety differ according to mother's education level?
- Do reading and writing anxiety differ according to father's education level?
- Does reading anxiety have a predictive role in the relationship between reading and writing anxiety?

METHOD

Research Model

This quantitative study in a correlational research model examines the relationship between primary school fourth-grade students' reading anxiety and writing anxiety. Correlational research is a model in which the researcher tries to determine the relationship's direction, degree, and level without affecting the existing situation (Cohen et al., 2018; Creswell, 2020). Since the relationship between reading and writing anxiety was examined as a predictor in the research, this design was preferred.

Sample

The research sample consists of 402 fourth-grade primary school students in three different primary schools in the city center of a city in the Southeastern Anatolia Region in the spring term of the 2021-2022 academic year. Participants were selected from the 420 students of the population using the convenient sampling method, a non-random sampling type (Fraenkel et al., 2012), which requires a description of the demographic characteristics of the participants. The common feature of the participants is that they study in the fourth grade of primary school. Of the students, 61.9% ($n = 249$) were girls, and 38.1% ($n = 153$) were boys. Although the ages of the students are close to each other because they are at the same grade level, they are distributed between 9-11 ($Mean = 9.83$; $Std.Dev. = .63$).

Measures

Personal Information Form: There are three variables: gender, mother's education level, and father's education level.

Reading Anxiety Scale: It was developed by Çeliktürk and Yamaç (2015) to determine the reading anxiety levels of primary and secondary school students. First of all, validity and reliability studies of the 42-item draft scale were carried out with the data collected from 410 students. Exploratory Factor Analysis (EFA), used to examine the construct validity, showed that the scale had a single-factor structure. The total variance explained by the scale is 55.87%. There are 29 items in the scale expressing reading anxiety. This study used a 3-point Likert-type rating consisting of "I agree, I am undecided, and I disagree" to answer the scale. The lowest score that can be obtained from the scale is 29, and the highest score is 87. As a result of Confirmatory Factor Analysis (CFA), it was determined that the fit index for the model was acceptable in the range of $\chi^2/df = 2.25$ / $RMSEA = .076$ / $NFI = .95$ / $CFI = .97$. While the Cronbach's alpha internal consistency coefficient of the scale was calculated as .95, it was determined as .91 for this study.

Writing Anxiety Scale: It was developed by Katrancı and Temel (2018) to determine the writing anxiety of primary school students. The 53-item draft form of the scale was reduced to 39 items after expert opinion. Data were collected from fourth-grade primary school students during the scale development process. After the data were collected, the construct validity was examined. As a result of EFA, the final form consisting of 20 items and four sub-dimensions was created. It was determined that the total variance explained by the scale was 58.39. The structure of the scale was confirmed by CFA. As a result of CFA, it was determined that the fit index for the model were acceptable ($\chi^2/df = 2.11$ / $NNFI = .91$ / $CFI = .92$ / $GFI = .94$). RMSEA index was a perfect model range of .043. Reliability analyzes were



performed with test-retest and Cronbach's alpha internal consistency coefficients. The internal consistency coefficient, determined as .91 in the original study, was calculated as .80 for this study. The lowest 20 from the scale; maximum of 60 points can be obtained. With these results, it can be said that the scale is a valid and reliable measurement tool for primary school students. This study used a 3-point Likert-type rating consisting of “I agree, I am undecided, and I disagree” to answer the scale.

Procedures

In this study, data were collected from primary school fourth-grade students. The questionnaires were distributed to students using a paper and pencil survey. The research was conducted by observing ethical rules, and the data were collected in the spring semester of the 2021-2022 academic year in line with the permission obtained from the Social Sciences Ethics Committee of Amasya University. Students were informed about the purpose of the study and ethical rules. It was also stated that the participation was voluntary and that they could leave whenever they want. It was observed that the application time lasted around 20 minutes.

Data Analysis

In this study, SPSS 24 program was used for data analysis. In order to check the accuracy of the data, the minimum-maximum values were examined, and it was seen that they were within the expected value ranges. In addition, univariate and multivariate outliers in the data set without missing values were examined; Participants whose z scores were outside the range of ± 3.29 and were found to be outliers in the Mahalanobis distance values were excluded from the data set (Tabachnick & Fidell, 2014). It was observed that the skewness and kurtosis values of the data were between ± 2 , and histogram graphs showed a distribution close to normal. In Pearson correlation and hierarchical regression analyses, in addition to the assumption of normality, scatter diagrams were checked, and it was seen that the data showed positive linear and negative linear relationships among themselves. Furthermore, it was observed that the regression errors showed a distribution close to normal. By examining the scatter diagrams, it was found that the covariance was satisfied. In order to examine the multicollinearity assumption, VIF, and tolerance values were examined, and values close to 1 indicate that the multicollinearity problem does not occur (Tabachnick & Fidell, 2014). As a result, the initial analyses showed that the data were suitable for the planned analysis.

Whether the students' reading and writing anxiety scores differ according to gender, with the t-test for independent samples one-way analysis of variance (ANOVA) was used to determine whether there was a significant difference according to the parents' education levels. Tukey HSD test was used to determine between which groups there was a significant difference as a result of ANOVA analysis. In all statistical analyzes, the level of significance was evaluated at $p < .05$.

RESULTS

Table 1 shows the frequency and percentage values of the variables.

Table 1. Descriptive statistics.

	<i>n</i>	%
Gender		
Male	249	61.9
Female	153	38.1
Mother education level		
Elementary school and below	207	51.5
Secondary school	97	24.1
High school and above	98	24.4
Father education level		
Elementary school and below	111	27.6
Secondary school	92	22.9
High school and above	199	49.5

n = 436



According to Table 1, 61.9% ($n = 249$) of the students were girls; 38.1% ($n = 153$) were male. It was found that 51.5% ($n = 207$) of the mothers of the students were primary school and below level graduates, 24.1% ($n = 97$) were secondary school graduates, and 24.4% ($n = 98$) were at least high school level. It was found that 27.6% ($n = 111$) of the students' fathers were primary school and below-level graduates, 22.9% ($n = 92$) were secondary school graduates, and 49.5% ($n = 199$) were at least high school level. Table 2 shows the results of the independent samples t-test, which was carried out to test whether there is a significant difference in the students' reading and writing anxiety scores according to gender.

Table 2. For gender t-test results.

	Mean	Std.Dev.	df	t	p
Reading Anxiety					
Female	61.15	12.81	400	3.56	.001***
Male	65.86	13.00			
Writing Anxiety					
Female	40.66	9.63	400	1.92	.55
Male	42.65	10.75			

 $p < .01^{**}$

In Table 2, as a result of the independent samples t -test, it was found that there was no significant gender difference between the writing anxiety scores of boys and girls ($t_{(400)} = 1.92, p > .05$). In other words, the writing anxiety levels of girls and boys are similar. However, it was found that there was a significant difference between the reading anxiety scores ($t_{(400)} = 3.56, p < .01$) in favor of men according to gender. This finding indicates that boys have more reading anxiety than girls. Table 3 shows the ANOVA results of the students' reading and writing anxiety scores according to the mother's education level.

Table 3. One-way ANOVA results for the mother's education level.

	Mean	Std.Dev.	df1, df2	F	p	Post hoc
Reading Anxiety						
Elementary school and below (1)	64.61	13.12	2 399	4.65	.01**	1-3
Secondary school (2)	62.56	13.10				
High school and above (3)	59.80	12.46				
Writing Anxiety						
Elementary school and below (1)	43.06	10.38	2 399	7.25	.01**	1-3
Secondary school (2)	40.87	8.63				
High school and above (3)	38.48	10.23				

 $p < .01^{**}$

According to the findings in Table 3, it was found that there was a significant difference in scores between the groups as a result of the ANOVA test performed regarding the mean scores of students' reading anxiety ($F_{(2, 399)} = 4.65, p < .01$) and writing anxiety ($F_{(2, 399)} = 7.25, p < .01$) according to the educational level of the mother. In addition, as a result of the post-hoc Tukey tests conducted to determine the source of the difference, the reading anxiety mean score of the students whose mothers graduated from primary school and below level (Mean = 64.61) is significantly higher than the reading anxiety mean score of the students whose mothers have at least high school education (Mean = 59.80). In addition, the writing anxiety mean score of the students whose mothers graduated from primary school and below level (Mean = 43.06) is significantly higher than the mean score of the students whose mothers have at least high school education (Mean = 38.48). Table 4 shows the ANOVA results of students' reading and writing anxiety scores according to father's education level.

**Table 4.** One-way ANOVA results for father education level

	Mean	Std.Dev.	df ₁ , df ₂	F	p	Post hoc
Reading Anxiety						
Elementary school and below (1)	67.05	13.82				
Secondary school (2)	64.90	12.19	2	13.22	.001***	1-3
High school and above (3)	59.74	12.26	399			
Writing Anxiety						
Elementary school and below (1)	44.14	11.36				
Secondary school (2)	42.33	9.33	2	8.35	.001***	1-3
High school and above (3)	39.48	9.31	399			

p < .001***

As a result of the ANOVA test performed in Table 4, it was found that there was a significant difference in scores between the groups as a result of the ANOVA test performed regarding the mean scores of students' reading anxiety ($F_{(2, 399)} = 13.22, p < .001$) and writing anxiety ($F_{(2, 399)} = 8.35, p < .01$) according to the educational level of the father. As a result of the post-hoc Tukey tests, the reading anxiety mean scores of the students whose fathers graduated from primary school and below level (Mean = 67.05) are significantly higher than those of the students whose fathers are at least high school (Mean = 59.74). In addition, the writing anxiety mean scores of students whose fathers graduated from primary school and below level (Mean = 44.14) and secondary school (Mean = 42.33) were significantly higher than the mean scores of students whose fathers had at least high school education (Mean = 39.48). The results of the Pearson Product-Moment Correlations analysis carried out to test whether there is a significant relationship between the students' reading and writing anxiety scores are given in Table 5.

Table 5. Pearson's product-moment correlations.

	1	2	3	4	5
Writing Anxiety (1)	-				
Reading Anxiety (2)	0.67**	-			
Mother's education level (3)	-0.19**	-0.15**	-		
Father's education level (4)	-0.20**	-0.25**	0.39**	-	
Gender (5)	0.09	0.18**	-0.08	-0.04	-
Mean	41.42	62.94	1.73	2.21	1.38
Std.Dev.	10.10	13.07	0.83	0.85	0.49

p < .01**

As seen in Table 5, the dependent variable of writing anxiety scores has a relationship with reading anxiety ($r = .67, p < .01$) positive and high levels; negative and low correlation with mother's education level ($r = -.19, p < .01$) and father's education level ($r = .20, p < .01$). No relationship was found between gender and writing anxiety ($r = .09, p > .05$). These findings reveal that as students' reading anxiety levels increase, their writing anxiety scores also increase. In the hierarchical regression analysis, which was carried out to determine the variables that best predicted the writing anxiety scores, the mother's and father's education levels related to the writing anxiety scores were entered as dummy variables in the first step. The second step included the students' reading anxiety scores in the regression equation. Gender was not included in the regression analysis because it was not related. Hierarchical regression analyses change statistics are shown in Table 6, and hierarchical regression analysis results are shown in Table 7.

Table 6. The change statistics of hierarchical regression analyses.

Model	<i>R</i>	<i>R</i> ²	Adj <i>R</i> ²	<i>SE Est.</i>	Change Statistics				
					ΔR^2	ΔF	<i>df</i> ₁	<i>df</i> ₂	<i>p</i>
Model 1	0.20	0.04	0.04	9.91	0.04	8.68	2	399	0.001***
Model 2	0.67	0.45	0.45	7.49	0.41	300.65	1	398	0.001***

p < .001***

**Table 7.** The results of hierarchical regression analyses

Model		Unstandardized Coefficients		Standardized Coefficients	<i>t</i>	<i>p</i>
		<i>B</i>	<i>SE</i>	β		
Model 1	(Constant)	44.66	.97		46.22	.001***
	Mother education level	-2.78	1.18	-.12	-2.36	.02*
	Father education level	-2.54	1.05	-.13	-2.41	.02*
Model 2	(Constant)	10.45	2.10		4.97	.001***
	Mother education level	-0.28	.90	-.01	-.3	.76
	Father education level	-1.57	.80	-.08	-1.96	.051
	Reading Anxiety	.51	.03	.66	17.34	.001***

SE: Standart error, $p < .05$, $p < .001$ ***

As seen in Table 6, the hierarchical regression analysis was completed in two steps. Mother's and father's education, included in the regression equation at the first stage, explain approximately 4% of the change in writing anxiety scores. This change is significant ($F_{(2, 399)} = 8.68$, $p < .001$, $\Delta R^2 = .04$). The first model shows that writing anxiety increases as the education levels of the parents decrease. Reading anxiety scores entered in the second step of the hierarchical regression analysis explain 41% of the variation in writing anxiety scores in addition to the mother and father education level variables ($F_{(1, 398)} = 300.65$, $p < .001$, $\Delta R^2 = .41$). The final model has a high effect size (Cohen, 1992) and reading anxiety scores ($\beta = .66$, $t_{(399)} = 17.34$, $p < .001$) are significant predictors. According to Table 7, the parents' education level is not significant in the last model. In other words, when the effect of other variables in this sample is controlled, students with high reading anxiety have high writing anxiety scores.

DISCUSSION, CONCLUSION, and SUGGESTIONS

This research examines the relationship between reading anxiety, which negatively affects the performance and habits of primary school fourth-grade students, and writing anxiety, which negatively affects the writing process. In the sub-purpose of this study, which aims to examine the predictor of reading anxiety in students' writing anxiety, it is aimed to examine the anxiety according to some variables. An examination was made about the differences in reading and writing anxiety according to gender, mother's education level, and father's education level for fourth-grade primary school students.

According to the results of the first sub-problem, it was found that the reading anxiety of the fourth-grade primary school students was at a moderate level. Likewise, students' writing anxiety average scores were at a moderate level. In their study, Yıldız and Ceyhan (2016) determined that the reading and writing anxiety of fourth-grade primary school students was moderate and reached similar results to these findings. Other studies determine that students' reading anxiety (Taşdemir & Taşdemir, 2020) and writing anxiety (Kırmızı & Dağdeviren Kırmızı, 2015) moderate. Reducing reading anxiety is one of the effective ways to reduce writing anxiety (Bozgun, 2022). Low anxiety positively affects the responsibility and willingness to complete the task. However, moderate and high levels of anxiety can negatively affect the student's success and decrease the student's performance. This type of anxiety is known as debilitating anxiety. It is not expected that the anxiety will be as high as nothing. It must be measurable according to moderate levels (Tekindal, 2015). While the students in this study were expected to have low reading and writing anxiety levels, they were found to have moderate anxiety. This anxiety may have been caused by factors such as the fact that reading and writing are affected by affective processes and that reading and writing are difficult according to other language skills.

According to the results of the second sub-problem, students' reading anxiety differs according to gender. It was determined that this difference favored boys, who experienced more reading anxiety than girls. Accordingly, it can be said that male students avoid reading or are afraid. The rate of reading books may also have affected this situation. Dilbaz (2019) stated that girls read more books than boys and emphasized that girls have reading habitsthat girls read more books than boys and that girls have



more common reading habits. Since reading skill is an activity that develops with reading books, the fact that girls experience less reading anxiety can be explained by this.

Contrary to these findings, Taşdemir and Taşdemir (2020) determined that reading anxiety did not change according to gender. Uçgun (2016) determined that female students have more reading anxiety than males. It was found that there was no difference in the writing anxiety of the students according to gender. There are studies supporting these findings in the literature (İşeri & Ünal, 2012; Karakaya & Ülper, 2011; Özsoy, 2015; Temel & Katrancı, 2019; Yaman, 2010). Some studies determined that writing anxiety varies according to gender and reading anxiety does not support the findings of this study (Yıldız & Ceyhan, 2016).

According to the results of the third sub-problem, it was determined that the reading anxiety of the fourth-grade students differed according to the mother's education level. The reading anxiety of the students whose mothers are educated at the university level is lower than those whose mothers are educated at the primary school level or below. Studies supporting these findings are available in the literature (Taşdemir & Taşdemir, 2020; Uçgun, 2016). Contrary to these results, some studies determined that reading anxiety does not change according to mother's education level (Karakaya & Ülper, 2011; Yıldız & Ceyhan, 2016). It was determined that students' writing anxiety also differed according to the mother's education level. This difference favors students whose mothers are educated at the university level. That is, as their mothers' education level increases, students' writing anxiety decreases. Temel and Katrancı (2019) determined that writing anxiety changes according to the parents' education level. These results show that anxiety can decrease as the level of education increases. Therefore, it can be said that mother education plays an important role in reducing the writing anxiety of the child (Özsoy, 2015; Yaman, 2010). As parents, mothers can support their children not only with their care but also with their school work. Especially as the level of education increases, the effort of the child to reach her level even higher increases. For this reason, the reading and writing anxiety of the students in this study may have decreased as their mothers' education level increased.

According to the results of the fourth sub-problem, it was determined that the reading and writing anxiety of the students differed according to the father's education level. Students whose fathers are educated at the high school level have lower reading anxiety than those who are educated at the primary school level or below. Studies supporting these findings are available in the literature (Taşdemir and Taşdemir, 2020; Uçgun, 2016). Contrary to these results, some studies determined that reading anxiety does not change according to father's education level (Karakaya & Ülper, 2011; Yıldız & Ceyhan, 2016). The writing anxiety of students whose fathers are educated at the university level is lower than students whose fathers are educated at the primary and secondary school levels. These results show that the students' writing anxiety decreases as their fathers' education level increases. Fathers as parents generally have a higher level of education than mothers in our society. This situation may enable children to make more efforts by forming the idea that they should receive a good education by taking their fathers as role models. For this reason, the reading and writing anxiety of the students in this study may have decreased as the education level of their fathers increased. Contrary to the findings of this study, some studies found that anxiety did not change according to the educational level of the father (Karakaya & Ülper, 2011; Temel & Katrancı, 2019; Yıldız & Ceyhan, 2016).

According to the results of the last sub-problem, it was determined that there was a high level and positive direction of correlation between the reading and writing anxiety of fourth-grade primary school students. In the first step of the regression analysis, which was carried out to determine to what extent and in what direction the reading anxiety predicted the students' writing anxiety, the parents' education level explained 4% of the co-writing anxiety. Accordingly, as the parents' education level decreases, writing anxiety increases. Reading anxiety added to the analysis in the second step explained 41% of writing anxiety. According to these results, students' reading anxiety significantly predicts their writing anxiety. Students' writing skills also depend to some extent on their reading skills. Factors such as increasing vocabulary as you read and changing perspective can be effective in writing. Anxiety in reading can also cause negative emotions in writing. Baki (2020) determined that reading has a 35%



effect on writing in primary school students and reached similar results to this study. He also determined that the predictive level of reading and writing for female students was 41%. Yıldız and Ceyhan (2016) state that there is a relationship between primary school students' reading and writing anxiety. As Polatcan et al. (2019) stated, an increase in anxiety causes anxiety disorder. This may be one of the underlying reasons why individuals who experience anxiety in reading also experience anxiety in writing.

In conclusion, this study provides evidence for primary school students' reading and writing skills by examining the predictive role of reading anxiety in the relationship between primary school fourth-grade students' reading anxiety and writing anxiety according to different variables. In the study, it was found that reading anxiety should be reduced to prevent cognitive and affective negative processes experienced in the writing process. In addition, training that can effectively reduce reading and writing anxiety at a moderate level can be organized. First, reading anxiety can be overcome by gaining the habit of reading (Tekdemir, 2019; Yıldız & Ceyhan, 2016) and then writing anxiety. Early childhood is one of the critical periods in the formation of reading and writing anxiety. In particular, early reading and writing exercises, unconscious interventions, insufficient visual acuity, and immaturity in language skills can cause reading and writing difficulties (Ayaş & Köksal, 2017). Such reasons can also lead to the formation of reading and writing anxiety. Reading anxiety can be reduced by employing books that loved to read, stories and novels left to own choice, and activities that will gain the habit of reading. Factors such as presenting texts from easy to difficult and the appropriateness of the readability level of the texts according to age (Kanik Uysal & Akyol, 2019) can be taken into account in eliminating reading anxiety. However, the first thing to do about reading anxiety is to get an idea about the reason for the emergence of anxiety (Melanlıoğlu, 2014). It is thought that it will be important for researchers to conduct future experimental studies on this subject. In addition, informative training can be given to increase parents' awareness, taking into account the effect of their parents' education level on their reading and writing anxiety. One of the limitations of this research is working with fourth-grade primary school students. In addition, considering only the anxiety dimension of reading and writing is another limitation. In future studies, examining variables such as reading and writing anxiety, reading comprehension, reading habits, writing habits, and writing motivation is recommended.

Ethics and Conflict of Interest

It was confirmed that this study's author has contributed sufficiently to the research. He also confirmed that it acted in accordance with ethical rules at all stages of the research as stated in the approval granted by the Ethics Committee of Amasya University (Date:06.04.2022, number: E-30640013-108.01-65616).

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