Relationships between Digital Reading Motivation, Turkish Lesson Attitude, Reading Anxiety and Reading Comprehension of Fourth Grade Primary School Students

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ABSTRACT

The aim of this study is to examine the relationship between reading anxiety, digital reading motivation, Turkish lesson attitude and reading comprehension levels of fourth grade primary school students. The design of the research is relational research model. The study group consists of 123 students studying in the fourth grade of primary school. Digital reading motivation scale, reading anxiety scale, Turkish lesson attitude scale and reading comprehension tests were used as data collection tools. SPSS 26 program was used in the analysis of the data. According to the results of the research; there is a significant negative relationship between reading anxiety and reading comprehension and a significant positive relationship between Turkish lesson attitude and digital reading motivation. There is no significant relationship between Turkish lesson attitude and reading comprehension and between digital reading motivation and reading comprehension. Relational analyses can be expanded by studying the psychological factors that affect students' reading with different study groups. Thus, arrangements can be made to improve students' reading regardless of grade level.

Key words: Reading Anxiety, Motivation, Digital Reading, Reading Comprehension

INTRODUCTION

Students develop their language and experiences with reading, which has become one of the daily activities. For this reason, reading activity has an important role in students' education (Ayu et al., 2017). The main purpose of reading is to realize comprehension. Tompkins (2010) and Nation (2005) state that the purpose of reading is comprehension. Reading comprehension is a multidimensional, complex and dynamic structure that involves the construction and interpretation of the meaning of the text read (Snyder et al., 2005). In order to better understand and improve this complex process, it is important to understand the components with which reading comprehension interacts. Lamb and Arnold (1976) state that there are three factors affecting students' reading comprehension physiological, intellectual and psychological factors (as cited in Mustikasari, 2021).

Physiological factors are related to the eye and vision. In order to read, the brain and the eye should work in harmony (Akçamete, 1989). Similarly, Kurudayıoğlu (2011) states that the physical dimension of reading consists of eye muscles, clarity area, clarity angle and reading distance. While reading, the eye jumps at certain intervals and reading is realized in this way. The healthier the eye muscles are and the more they jump at the ideal speed, the more fluent and accurate the reading is. Factors such as reading distance and clear vision in brain and eye coordination are expressed as physiological

factors in the development of reading. As for intellectual factors, family structure and socio-economic level are related to reading comprehension. Many studies show that the educational level of the family is effective in the development of the child's reading comprehension skills (Anılan, 2004; Bayram, 1990; İnan, 2005). According to Özbay (2006), the educational level of the family, reading activities carried out with the family, and the presence of a library at home affect children's reading. In addition, he states that children with better socio-economic status may be more advantageous in terms of access to books, family's perception of reading, and the number of books in the home, and this situation may contribute to the development of children's reading skills (Baştuğ, 2012). Finally, psychological factors, namely anxiety, attitude, interest, self-efficacy and motivation affect reading skills (Göksel, 2022). It is expected that students with high motivation, low anxiety level and positive attitude are more successful in reading; on the contrary, they are expected to move away from reading.

Anxiety is an internal reaction of a person to cope with a threatening or stressful situation. When the literature is analyzed, it is seen that there are main sources of reading anxiety in the relationship between reading and anxiety. Firstly, Hinton et al. (2008) argued that the formation of reading anxiety goes through the classical conditioning process between reading and fear. In particular, when grasping

new ideas through text reading, students often find it difficult to concentrate when reading a text whose content they have difficulty understanding. The state of uneasiness and stress experienced while reading a text is commonly referred to as reading anxiety. When anxious, physical or cognitive reactions such as sweating, trembling, embarrassment, timidity, and helplessness may occur in the student. As a result, the student's perception is closed and he/she becomes unable to read (Melanlıoğlu, 2014). With difficulty in reading, the student develops negative values towards himself/herself and decreases his/her self-efficacy. As a result, reading anxiety develops a relationship between the student and negative emotions (Guimba & Alico, 2015). Studies have shown that there is a relationship between reading anxiety and students' reading comprehension (Altunkaya & Erdem, 2017; İşeri & Ünal, 2012; Wu, 2011; Zbornik, 2001). Depending on the level of anxiety, students' reading comprehension levels change and this emotional response affects other academic performances.

Attitude is a general tendency that directs a person's thoughts, feelings and behaviors about a particular subject, object or person. Positive/negative attitudes of students affect their thoughts, feelings and behaviors (Kağıtçıbaşı, 1999; as cited in Fidan & Eren, 2017). Students who develop positive attitudes towards reading enjoy reading and can develop reading habits. On the other hand, students who develop negative attitudes towards reading read only when they feel obliged to read. They are afraid of reading and sometimes show their reactions by not reading. The attitude they develop towards reading is decisive in their attitudes towards Turkish lesson (Ateş, 2008; Bağcı & İpekci, 2016; Bölükbaş, 2010; Karasakaloğlu & Saracaloğlu, 2009).

Motivation is the process of interaction between the person and the environment; it refers to behavior selection, initiation and continuation of behavior (Svinicki & Vogler, 2012 as cited in Svinicki & Vogler, 2012. Bayrakçeken et al., 2021). Reading motivation shapes students' positive or negative thoughts about reading. For example, students who read for pleasure and use strategies to understand what they read are highly motivated readers. Such students often see reading as an important factor in their daily activities, accept difficulties in the reading process, and generally become successful readers (Guthrie & Wigfield, 2000). For this reason, reading motivation is an important factor in reading achievement and has the capacity to affect the development of this achievement (Davis et al., 2018). Digital reading as an alternative type of reading with the integration of the internet and digital technologies into education; in fact, it is a type of reading that is frequently used in daily life. Many readings such as news, texts, reports that are carried out during the day on computers, mobile phones and tablets can be defined as digital reading. Considering that digital reading in the educational environment has become widespread with different web education applications, the level of students' digital reading motivation gains importance.

Purpose of the Research

When the literature is examined, although it has been studied for many years, especially in recent years, the relationship between comprehension, anxiety, attitude and motivation has been examined mutually in different study groups. For example; reading comprehension and reading anxiety (Altunkaya, 2017; Aygün, 2021; Hamzadayı & Batmaz; 2022; Yılmaz, 2023), reading anxiety and attitudes towards Turkish lesson (Baki, 2019; Dursun & Özenç, 2019), reading comprehension and reading motivation (Batmaz & Erdoğan, 2019), reading anxiety, reading comprehension, reading motivation (Yamaç & Sezgin, 2018), reading comprehension, reading motivation and attitudes towards Turkish lesson (Türkben & Gündeğer, 2021). There is no study that deals with the relationship between digital reading motivation and different variables. Based on the prediction that digital reading will become widespread in the educational understanding of the near future, it is thought that examining the relationship between students' digital reading motivation and other psychological factors affecting reading; At the same time, it is thought that the findings to be obtained in this research will contribute to the literature due to the lack of studies addressing reading anxiety, attitude towards Turkish lesson and reading comprehension together. For this reason, it was aimed to examine the relationships between reading anxiety, attitude towards Turkish lesson, digital reading motivation and reading comprehension.

METHOD

Research Design

The model of this study, in which the relationships between digital reading motivation, attitude towards Turkish lesson, reading anxiety and reading comprehension of fourth grade primary school students are examined, is a relational research model from quantitative research designs. According to Creswell and Creswell (2017), in this model, the degree and direction of the relationship between two or more quantitative variables are defined and this is done using a correlation coefficient.

Relational research is the examination of the relationship between at least two variables as it is without any intervention to these variables. In this type of research, the interactions of variables with each other and the levels of these interactions are determined and important tricks are obtained in conducting higher level studies on the relationships between variables (Büyüköztürk et al., 2013).

Participant

The population of the study consists of fourth grade primary school students continuing their education in Konya. The sample of the study consists of fourth grade students studying in a primary school determined by convenience sampling. A total of 123 students (56 boys and 67 girls), 56 boys and 67 girls, who were studying in the fourth grade in a primary school in the center of Konya province in Turkey, participated in the study. The number of students in the classes varied between 30 and 45. The reason for working with the fourth grade of primary school is that it is a transition grade level depending on the current 4+4+4 education system. It is predicted that attitudes towards reading skills, motivation,

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anxiety and reading comprehension levels in the fourth grade will affect the academic achievement of students in the second level of education.

Data Collection Tools

Digital Reading Motivation Scale: The scale developed by Bulut and Susar Kırmızı (2022) consists of 19 items with three sub-dimensions. The sub-dimensions of the scale are individual benefits (7 items), content (6 items) and effectiveness (6 items). The highest score that can be obtained from the scale designed in 5-point Likert type (Never=1 point, Rarely=2 points, Occasionally=3 points, Most of the time=4 points, Always=5 points) is (19×5) 95 and the lowest score is (19×1) 19. The Cronbach's Alpha reliability coefficient of the digital reading motivation scale is.855. In this study, Cronbach's Alpha value is 0.852 for the overall scale, 0.787 for the individual sub-dimension, 0.787 for the content sub-dimension 0705 and 0.718 for the impressiveness sub-dimension.

Turkish Lesson Attitude Scale: Turkish lesson attitude scale; developed by Kapar Kuvanç (2008), consists of 21 items in a 5-point Likert-type scale (strongly agree, agree, undecided, disagree, strongly disagree). The sub-dimensions of the scale are negative feelings about Turkish lesson (8 items), interest and desire (7 items) and use in life (6 items). Cronbach's Alpha reliability coefficient of the scale was determined as 0.86. The lowest score that can be obtained from the scale is 21 and the highest score is 105. As the scores obtained from the scale increase, the attitude towards the Turkish lesson increases positively; as the scores decrease, the attitude towards the lesson becomes negative. In this study, the reliability coefficient for the attitude towards Turkish lesson scale was calculated as.761.,782 for the negative emotions sub-dimension.,774 for the interest and desire sub-dimension and.802 for the life sub-dimension.

Reading Anxiety Scale: The scale developed by Çeliktürk and Yamaç (2015) consists of 29 items in 5-point Likert (Always, Most of the time, Occasionally, Rarely, Never) type. The scale has a single-factor structure. The lowest score that can be obtained from the scale is 29 and the highest score is 145. Cronbach's Alpha value for the reliability of the scale is.95. In this study, Cronbach's Alpha value was 0.946.

Reading Comprehension Tests: The reading comprehension tests developed by Çeliktürk Sezgin and Akyol (2018) consist of two texts, one informative and one narrative text for the fourth grade level of primary school. For both texts, there are 10 questions predicting different comprehension levels. Each question is scored between 0-5 points. The lowest score that can be obtained from the reading comprehension tests is 0 and the highest score is 100. For this study, the reliability coefficient of the tests was 0.848, 0.788 for the knowledge sub-dimension and 0.787 for the story sub-dimension.

Data Collection Process

The data were collected over a period of one week in the second semester of the 2022-2023 academic year. After obtaining the necessary permissions for the research, the application was started.

Firstly, the school administration was interviewed and information about the scales was given. The four scales used in the study were applied by the classroom teachers, one scale per day. Care was taken to apply the scales in a certain order. The implementation schedule is given in Table 1.

Data Analyses

SPSS 26 programme was used in data analysis. Outlier was checked according to the z values of the scale scores, but no outlier was found. Skewness and kurtosis values were checked

Table 1. Scale implementation schedule

Name of Scale	Implementation Schedule
Reading Anxiety Scale	05.06.2023
Turkish Lesson Attitude Scale	06.06.2023
Digital Reading Motivation Scale	07.06.2023
Reading Comprehension Tests	08.06.2023
	09.06.2023

Table 2. Descriptive statistics table for scale scores and subscales *4.1 Recruitment*

Scale Scores	Min	Max	*M*	*SD*	skewness	kurtosis
Reading Anxiety	29	129	62.00	24.38	0.647	-0.274
Negative Emotions	8	40	17.94	7.92	0.887	0.092
Interest and Desire	7	35	23.39	7.57	-0.496	-0.484
Using in Life	8	30	21.99	5.54	-0.421	-0.601
Turkish Lesson Attitude General	32	79	63.32	8.20	-0.515	0.934
Individual Benefits	7	35	21.57	5.49	0.151	0.22
Content	6	30	16.66	4.71	0.218	0.119
Effectiveness	6	30	19.08	5.28	-0.287	-0.107
Digital Reading Motivation General	19	95	57.31	13.48	0.088	0.683
Storytelling	3	50	37.92	10.14	-1.267	1.349
Informative	3	50	29.91	11.84	-0.438	-0.683
Reading Comprehension General	6	100	67.83	18.97	-0.808	0.207

for the normality of the scale scores and if these values are between ±2, the score distribution is normal (George & Mallery, 2010). In statistical analyses, Pearson correlation method was used for the relationship between these scores since all scores showed normal distribution, while multiple linear regression analysis method was used for the effect of other scores on attitude and digital reading motivation. The assumptions required for the multiple linear regression analysis method are stated in the findings section, and the most basic assumption, the multicollinearity problem, was met for all tested regression models. For statistical analyses, p<.05 significance level was compared.

Ethical Commitment

This study confirmed that scientific, ethical, and citation rules were followed at the Selcuk University Ethics committee meeting dated 22.05.2023 with the application with the research number E.520578. In addition, it has been committed by the responsible author that no falsification has been made on the collected data, and the research has not been sent to other journals.

FINDINGS

Descriptive statistics related to reading anxiety, Turkish lesson attitude general and sub-dimensions (Negative Emotions, Interest and Desire, Using in Life), digital reading motivation general and sub-dimensions (Individual Benefits, Content, Effectiveness), reading comprehension general and sub-dimensions (Storytelling, Informative) are given in Table 2.

Recruitment

All scale scores and sub-dimension scores were obtained by summing the items. The reading anxiety scale score ranged between 29-129 and the mean score was 62. Turkish lesson attitude general scores ranged between 32-79 with a mean of 63.32, negative emotions sub-dimension scores ranged between 8-40 with a mean of 17.94, interest and desire sub-dimension scores ranged between 7-35 with a mean of 23.39, and use in life sub-dimension scores ranged between 8-30 with a mean of 21.99. While the general scores of digital reading motivation ranged between 19 and 95 with an average of 57.11, the individual sub-dimension scores ranged between 7-35 with an average of 21.57, the content sub-dimension scores ranged between 6-30 with an average of 16.66 and the impressiveness sub-dimension scores ranged between 6 and 30 with an average of 19.08. While the overall reading comprehension scores ranged between 6 and 100, the mean score was 67.83, the mean score was 37.92 when the narrative sub-dimension scores ranged between 3-50 and the mean score was 29.91 when the informative sub-dimension scores ranged between 3 and 50. As a result, all skewness and kurtosis values were between ±2 and the score distributions were normal.

The findings obtained for examining the relationship between reading anxiety, Turkish lesson attitude, digital reading motivation and reading comprehension general and sub-dimensions are given in Table 3.

Table 3. Pearson correlation table

	1	2	3	4	5	6	7	8	9	10	11	12
1. Reading anxiety	1											
2. Negative Emotions	0.266**	1										
3. Interest and Desire	-0.087	-0.719**	1									
4. Using in Life	-0.221*	-0.584**	0.643**	1								
5. Turkish Lesson Attitude General	0.027	-0.093	0.664**	0.705**	1							
6. Individual Benefits	-0.04	-0.008	0.049	0.214*	0.183*	1						
7. Content	-0.014	0.024	0.106	0.240**	0.283**	0.611**	1					
8. Effectiveness	-0.1	-0.146	0.233**	0.381**	0.332**	0.653**	0.644**	1				
9. Digital Reading Motivation General	-0.061	-0.052	0.148	0.320**	0.303**	0.877**	0.851**	0.882**	1			
10. Storytelling	-0.07	-0.028	-0.06	0.102	-0.014	0.127	0.071	0.171	0.143	1		
11. Informative	-0.257**	-0.218*	0.108	0.184*	0.014	0.128	0.035	0.145	0.121	0.486**	1	
12. Reading Comprehension General	-0.198*	-0.151	0.035	0.17	0.001	0.148	0.06	0.182*	0.152	0.838**	0.884**	1

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Pearson correlation method was used for the relationship between the general scores and sub-dimensions of the scale. In this method, the scores should be continuous, normally distributed and the number of data should be large enough (N>50) (Tabachnick & Fidell, 2013). In the interpretation of the correlation coefficient, Baykul (2010) states that there is a low level relationship if r<0.40, a medium level relationship if 0.40<r<0.70 and a high level relationship if r>0.70.

While there is no significant relationship between reading anxiety scores and Turkish lesson attitude scores and digital reading motivation scores, there is a negative, low level and significant relationship between reading comprehension scores (r=-0.198, p<.05). There is a positive, low level and significant relationship between reading anxiety scores and Turkish lesson attitude scale negative emotions (r=0.266, p<.05) and a negative, low level and significant relationship between the sub-dimension scores of use in life (r=-0.221, p<.0. There is no significant relationship between reading anxiety scores and the interest and desire sub-dimension of Turkish lesson attitude scale. There is also no relationship between reading anxiety scores and the sub-dimensions of the digital reading motivation scale. Finally, there is a negative, low and significant relationship between reading anxiety scores and informative sub-dimension scores (r=-0.257, p<.05).

A positive, low level and significant correlation was obtained between Turkish lesson attitude general scores and digital reading motivation (r=0.303, p<.01), individual sub-dimension (r=0.183, p<.01), content sub-dimension (r=0.283, p<.01) and effectiveness sub-dimension (r=0.332, p<.01). A positive, low level and significant relationship was obtained between the interest and desire sub-dimension of the Turkish lesson attitude scale and digital reading motivation affectivity (r=0.233, p<.01). A positive, low level and significant correlation was obtained between the Turkish lesson attitude scale use in life sub-dimension scores and digital reading motivation (r=0.320, p<.01), individual sub-dimension (r=0.214, p<.01), content sub-dimension (r=0.240, p<.01) and effectiveness sub-dimension (r=0.381, p<.01).

There is no significant relationship between the students' Turkish lesson attitude general scores and reading comprehension scores, narrative and informative sub-dimension scores. However, a negative, low level and significant relationship was found between the negative emotions sub-dimension and the informative sub-dimension (r=-0.218, p<.01) of the Turkish lesson attitude scale. A positive, low level and significant relationship was found between the sub-dimension of using in life and informative sub-dimension (r=0.184, p<.01) of the Turkish lesson attitude scale.

There is no significant relationship between digital reading motivation general scores, individual and content sub-dimension scores and reading comprehension general scores, informative and narrative sub-dimension scores (p>.05). A positive, low level and significant relationship was obtained between digital reading motivation scale impressiveness sub-dimension scores and reading comprehension general scores (r=0.182, p<.01).

Since reading anxiety and reading comprehension did not show significance directly related to Turkish lesson attitude and digital reading motivation, only the effect of scale scores on digital reading motivation and attitudes towards Turkish lesson was analyzed. For this purpose, multiple linear regression analysis method was used. For this method, the dependent variable should be continuous and normally distributed, and if the independent variables are continuous, they should also be normally distributed. In addition, the number of data should be sufficient (N>30) and there should not be multicollinearity between independent variables, in other words, there should not be a very high level of correlation. In multicollinearity problem, tolerance and VIF values are analyzed. If VIF values are less than 10 and tolerance values are greater than 0.10, there is no multicollinearity (Pallant, 2007; Tabachnick & Fidell, 2013).

The data on the effect of students' reading anxiety, Turkish lesson attitudes and reading comprehension levels on their digital reading motivation are given in Table 4 and Table 5.

The tolerance values of the independent variables in the model are between 0.96-0.999 and greater than 0.10 and the VIF value is between 1.001-1.042 and less than 10 and there is no multicollinearity.

The model established for the effect of students' reading anxiety, Turkish lesson attitudes and reading comprehension levels on their digital reading motivation is significant (F(3,119)=5.244, p<.05). R square value shows the rate of explaining the variability in the dependent variable by independent variables (Pallant, 2007). 11.7% of the variability in digital reading motivation general scores is explained by the variables in the model. Turkish lesson attitude general scores (B=0.500, t=-3.532, p<.05) were obtained as a significant

Table 4. Table of multicollinearity

	Tolerance	VIF
Reading Anxiety	0.96	1.042
Turkish Lesson Attitudes	0.999	1.001
Reading Comprehension	0.961	1.041

Table 5. Regression table for digital reading motivation

Independent Variables	B	Standard Error	β	t	p
Stable	20.066	10.578		1.897	0.06
Reading Anxiety	-0.022	0.049	-0.04	-0.46	0.647
Turkish Lesson Attitudes	0.5	0.142	0.304	3.532	0.001*
Reading Comprehension	0.102	0.062	0.144	1.638	0.104

$F_{(3,119)}$=5.244; p=0.002

R = 0.342; R^2 = 0.117

predictor for digital reading motivation general scores in this model. When there is an increase of 1 unit in students' Turkish lesson attitude general scores, there is an increase of 0.500 units in their digital reading motivation general scores. The effect of students' reading anxiety and reading comprehension general scores on digital reading motivation in this model is not significant ($p>.05$).

Data on the effect of students' reading anxiety, Turkish lesson attitude sub-dimensions and reading comprehension level sub-dimensions on their digital reading motivation are given in Table 6 and Table 7.

The tolerance values of the independent variables in the model are between 0.38-0.846 and greater than 0.10 and the VIF value is between 1.182-2.631 and less than 10 and there is no multicollinearity.

The model established for the effect of students' reading anxiety, Turkish lesson attitude sub-dimensions and reading comprehension sub-dimensions on their digital reading motivation is significant ($F_{(6,116)}=3.227$, $p<.05$). 14.5% of the variability in digital reading motivation general scores is explained by the variables in the model. The life sub-dimension of the Turkish lesson attitude scale (B=0.975, t=3.389, $p<.05$) is the only significant predictor for digital reading motivation general scores in this model. When there is an increase of 1 unit in students' Turkish lesson attitude scale life sub-dimension scores, there is an increase of 0.975 units in their digital reading motivation general scores. The effect of students' reading anxiety, Turkish lesson attitude scale negative emotions and interest and desire sub-dimensions and reading comprehension knowledge and story sub-dimensions on digital reading motivation in this model is not significant ($p>.05$).

Data on the effect of students' reading anxiety, digital reading motivation and reading comprehension general

scores on their Turkish lesson attitude general scores are given in Table 8 and Table 9.

The tolerance values of the independent variables in the model are between 0.941-0.976 which is greater than 0.10 and VIF value is between 1.025-1.063 which is less than 10 and there is no multicollinearity.

The model established for the effect of students' reading anxiety, digital reading motivation and reading comprehension general scores on Turkish lesson attitude general scores is significant ($F_{(3,119)}=4.194$, $p<.05$). 9.6% of the variability in Turkish lesson attitude general scores is explained by the variables in the model. Digital reading motivation general scores (B=0.19, t=3.532, $p<.05$) is the only significant predictor for Turkish lesson attitude general scores in this model. When there is a 1-unit increase in students' digital reading motivation general scores, there is a 0.190-unit increase in Turkish lesson attitude general scores. The effect of students' reading anxiety and reading comprehension general scores on Turkish lesson attitude in this model is not significant ($p>.05$).

The data related to the effect of students' reading anxiety, digital reading motivation sub-dimensions and reading comprehension sub-dimensions on Turkish lesson attitude general scores are given in Table 10 and Table 11.

The tolerance values of the independent variables in the model are between 0.464-0.922 and greater than 0.10 and the VIF value is between 1.085-2.155 and less than 10 and there is no multicollinearity.

The model established for the effect of students' reading anxiety, digital reading motivation sub-dimensions and reading comprehension sub-dimensions on Turkish lesson general attitude scores is significant ($F_{(6,116)}=2.95$, $p<.05$). 13.2% of the variability in Turkish lesson attitude scores is explained by the variables in the model. Digital reading motivation impressiveness sub-dimension (B=0.504, t=2.557, $p<.05$) is the only significant predictor for Turkish lesson attitude general scores in this model. When there is a 1-unit increase in students' digital reading motivation impressiveness sub-dimension scores, there is a 0.504-unit increase in Turkish lesson attitude general scores. The effect of students' reading anxiety, digital reading motivation individual and content sub-dimensions and reading comprehension knowledge and story sub-dimensions on Turkish lesson attitude scores in this model is not significant ($p>.05$).

Table 6. Table of multicollinearity

	Tolerance	VIF
Reading Anxiety	0.846	1.182
Negative Emotions	0.421	2.375
Interest and Desire	0.38	2.631
Using in Life	0.528	1.895
Storytelling	0.734	1.363
Informative	0.691	1.447

Table 7. Regression table for digital reading motivation

Independent Variables	B	Standard Error	β	t	p
Stable	19.839	11.09		1.789	0.076
Reading Anxiety	-0.007	0.052	-0.014	-0.145	0.885
Negative Emotions	0.421	0.225	0.247	1.87	0.064
Interest and Desire	0.121	0.248	0.068	0.487	0.627
Using in Life	0.975	0.288	0.4	3.389	0.001*
Storytelling	0.119	0.133	0.09	0.895	0.373
Informative	0.053	0.118	0.047	0.455	0.65
$F_{(6,116)}=3.227$; p=0.005					
R = 0.381; R^2 = 0.145					

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DISCUSSION

The results obtained in this research, which examined the relationships between reading anxiety, Turkish lesson attitude, digital reading motivation and reading comprehension for primary school fourth graders, are as follows:

1. There is a significant negative relationship between reading anxiety and reading comprehension levels. As students' reading anxiety increases, their reading comprehension levels decrease or vice versa. When the literature is examined, it is seen that similar results were obtained in other studies (Altunkaya & Erdem, 2017; Aygün, 2021; Ghonsooly & Elahi, 2010; Jafarigohar & Behrooznia, 2012; Katrancı & Kuşdemir, 2016; Mardianti et al., 2021; Türkben, 2020; Yamaç & Çeliktürk Sezgin, 2018). This result can be explained by the fact that reading anxiety has the effect of reducing the student's participation in the reading activity and distracting from the reading activity (Yıldız & Ceyhan, 2016).

2. There is a positive relationship between reading anxiety and the negative emotions sub-dimension of the Turkish lesson attitude scale and a negative relationship between the use in life sub-dimension. As students' reading anxiety increases, their negative feelings about Turkish lesson attitudes increase and their tendency to use it in life decreases or vice versa. In a study conducted by Dursun and Özenç (2019), the relationship between reading anxiety and attitudes towards Turkish lesson was examined and similar results were obtained. There is no relationship between interest and desire, which are the sub-dimensions of the Turkish lesson attitude scale, and reading anxiety. Therefore, students' reading anxiety does not affect their interest and desire towards reading. This situation can be explained by external factors such as students' feeling that they have to read and wanting to be successful in their lessons, regardless of how they feel about reading.

In studies examining the relationship between anxiety and attitude towards the course in different disciplines, it was found that there was a significant negative relationship between the two variables (Kağıtçı, 2014; Şentürk, 2010; Yılmaz, 2011). When it is considered for the Turkish course, it is important to provide appropriate teaching methods, motivational activities and positive reading experiences to reduce students' reading anxiety and develop a positive attitude. In addition, making efforts to strengthen students' reading skills can reduce reading anxiety and thus positively affect attitudes towards Turkish lesson. As a matter of fact, in the literature, reading anxiety has a negative effect against reading.

3. No significant relationship was found between reading anxiety, Turkish lesson attitude and digital reading motivation; no significant relationship was found between reading anxiety and digital reading motivation sub-dimensions. No significant relationship was found between reading anxiety, Turkish course attitude and digital reading motivation and between reading anxiety and digital reading motivation sub-dimensions. Since there are no other studies on anxiety and digital reading motivation, this result cannot be interpreted comparatively. However, considering that reading anxiety is triggered by reasons such as making mistakes, failing, and getting low grades, it can be said that these reasons do not affect digital reading motivation. As a matter of fact, digital reading is not yet widely used in lessons and students do not encounter digital reading in lessons. Therefore, their experiences to develop an affective response to digital reading are also limited.

4. A negative relationship was found between reading anxiety and the informative sub-dimension of reading comprehension tests. As the students' reading anxiety increases, their reading comprehension scores from the informative text decrease or vice versa. The reason why a similar result was not found for narrative text may be that students are more successful in reading narrative text than expository text (Vatansever Bayraktar, 2015; Yıldırım et al., 2010). Since students encounter fictional texts more often from a young age, they may be more successful in comprehension when reading such texts. The vocabulary they have at the point of understanding informative texts and the fact that they have more informative content may be more complex for them. As a matter of fact, in this study, the reading comprehension scores of the students from the narrative text are higher than the informative text.

5. There is a positive relationship between Turkish lesson attitude and digital reading motivation general

Table 8. Table of multicollinearity

	Tolerance	VIF
Reading Anxiety	0.96	1.042
Turkish Lesson Attitudes	0.976	1.025
Reading Comprehension	0.941	1.063

Table 9. Regression table for attitude

Independent Variables	B	Standard Error	β	t	p
Stable	52.785	4.502		11.726	0
Reading Anxiety	0.013	0.03	0.039	0.434	0.665
Digital Reading Comprehension	0.19	0.054	0.312	3.532	0.001*
Okuduğunu Anlama	-0.017	0.039	-0.039	-0.432	0.666

$F_{(3,119)}$=4.194; p=0.007

R = 0.309; R^2 = 0.096

and sub-dimensions. As students' attitudes towards the Turkish lesson increase positively, their digital reading motivation also increases. In the literature, there are studies showing that there is a directly proportional relationship between attitudes towards Turkish lesson and reading motivation (Türkben & Gündeğer, 2021). However, due to the lack of relational research on digital reading motivation, a detailed interpretation of the relationship between it and attitude towards Turkish lesson cannot be made. Nevertheless, considering the curiosity of the new generation of students towards screens and digital, it can be thought that reading in this digital environment positively affects their attitudes towards the course.

6. There is no significant relationship between Turkish lesson attitude and reading comprehension scores, but there is a significant negative relationship between the negative emotions and use in life sub-dimensions of attitude and the informative sub-dimension of reading comprehension. In other words, as the negative feelings towards Turkish lesson and the perception of using it in life increase, the level of reading comprehension of expository text decreases. A similar result was observed between reading anxiety and expository text reading comprehension scores in this study. Therefore, it can be said that students' anxiety levels, negative attitudes and perceptions of use in life as psychological factors are effective in reading comprehension of informative texts. Students may feel more anxiety and develop negative attitudes towards the subject they have difficulty in understanding and believe that they cannot succeed. In addition, when the scale items of the Turkish lesson attitude scale's use in life sub-dimension are analyzed, it can be said that students have negative attitudes towards

doing activities, studies, etc. related to informative texts outside of class time.

7. A positive significant relationship was obtained between the digital reading motivation impressiveness sub-dimension and reading comprehension general scores. As the students' digital reading motivation impressiveness increases, their reading comprehension general scores also increase. When the items of the impressiveness sub-dimension of the digital reading motivation scale are examined, it can be said that students are more interested in digital texts in reading comprehension, and they are more excited while reading digital texts. There is no significant relationship between other sub-dimensions and overall scores. There is no significant relationship between other sub-dimensions and general scores. In the literature, there are studies that have obtained results that digital reading affects reading comprehension (Al Khazaleh, 2021; Florit, et al.,2022;) as well as studies that do not support reading comprehension (Goodwin, et al., 2020; Støle et al., 2020). Factors such as readers' familiarity with reading in digital environment, the type of device and environment in which digital reading is performed may affect the direction of the relationship between digital reading motivation and comprehension. Considering that the curiosity, interest and time allocated to digital technology continue to increase, it can be said that students are more motivated in reading in digital environment and therefore their reading comprehension levels increase at this rate.

8. In the model established to examine the effect of students' reading anxiety, Turkish lesson attitudes and reading comprehension levels on their digital reading motivation, it was concluded that reading anxiety and reading comprehension were not predictive of digital reading motivation, but Turkish lesson attitude was a significant predictor.

9. When the effect of reading anxiety, Turkish lesson attitude sub-dimensions and reading comprehension sub-dimensions on digital reading motivation was analyzed, it was concluded that only the use in life sub-dimension of the Turkish lesson attitude scale was a significant predictor.

10. When the effect of students' reading anxiety, digital reading motivation and reading comprehension general

Table 10. Table of multicollinearity

	Tolerance	VIF
Reading Anxiety	0.922	1.085
Individual Benefits	0.508	1.967
Content	0.516	1.939
Effectiveness	0.464	2.155
Storytelling	0.749	1.335
Informative	0.707	1.414

Table 11. Regression table for attitude

Independent Variables	B	Standard Error	β	t	p
Stable	53.496	4.496		11.899	0
Reading Anxiety	0.02	0.03	0.059	0.658	0.512
Individual Benefits	-0.166	0.181	-0.111	-0.915	0.362
Content	0.256	0.21	0.147	1.223	0.224
Effectiveness	0.504	0.197	0.325	2.557	0.012*
Storytelling	-0.061	0.081	-0.075	-0.753	0.453
Informative	0.019	0.071	0.027	0.267	0.79

$F_{(6,116)}$=2.95; p=0.010

R = 0.364; R^2 = 0.132

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scores on Turkish lesson attitude scores was analyzed, it was seen that only digital reading motivation was a significant predictor. In the study, a parallel result was obtained with the result obtained in the relationship between digital reading motivation and other scales.

11. Finally, when the effect of reading anxiety, digital reading motivation sub-dimensions and reading comprehension sub-dimensions on Turkish lesson attitude was analyzed, it was seen that only digital reading motivation affectivity sub-dimension was a significant predictor.

CONCLUSION

According to the results obtained in the research, some suggestions were made by the researcher.

- When reading studies for different grade levels are examined in the literature, it is seen that there is a need for development/improvement in terms of anxiety, attitude, motivation and comprehension. For this reason, it is suggested that the variables affecting these factors and the variables affected by these factors should be investigated in more detail.

- Based on the significant relationship between digital reading and Turkish course attitude, the effect of digital reading on the Turkish course and the development of reading skills can be investigated in more depth. Thus, digital reading can be used in a more planned way in improving reading.

- More time can be allocated to digital reading in Turkish lessons. As mentioned in the research results, students' interest and orientation towards digital technology can be used positively in this sense. Thus, a clearer idea about the relationship of digital reading with Turkish lessons and reading can be obtained.

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