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## A Structural Equation Model of Writing Anxiety, Writing Motivation and Academic Motivation of Students<sup>1</sup>

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### Abstract

Writing anxiety causes various problems in the writing process, makes it difficult for the person to produce text and can prevent the act of writing. Writing motivation supports writing skills by affecting the writing process positively. The purpose of this research is to determine relationships between students' writing anxiety, writing motivation and academic motivation. The research was carried out with the correlational design in the quantitative method. The population of this research consist of secondary school students and the sample consist of 1037 secondary school students, 577 of whom are females (55.64%) and 460 of them are males (44.36%) in Elazığ province centre in 2020-2021 academic year. As a result of the correlation test, hierarchical regression analysis, it was determined that students' writing anxiety meaningful was predicted the writing motivation ( $r=-.65$ /strong) and academic motivations ( $r=-.37$ /medium) by 53%. Structural equation model fit was verified. While writing process, avoidance and writing pleasure latent variables explain 11% of consubstantiated extrinsic motivation, this rate increased to 45% when writing motivation was added to the equality. Although writing process, avoidance and writing pleasure variables explained 39% of the unmotivation and 32% of the extrinsic motivation reflected internal, it was observed that the regression coefficient for the two equations increased to 70% with the addition of writing motivation as the predictive variable.

**Keywords:** academic motivation, intrinsic and extrinsic motivation, writing education, writing anxiety, writing motivation

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<sup>4</sup> This research study was conducted with Research Ethics Committee approval of Firat University, dated 30/04/2019 and issue number 325933.

## Introduction

Writing anxiety is a tension that occurs against writing at a level that prevents a person from producing text successfully. Indeed writing anxiety, caused by unreasonable negative thoughts (Wallace, 1994), cognitive skills such as attention, thinking, memory (Ormrod, 2006; Stober & Esser, 2001; Eysenck et al., 2007; Serinkan, 2008) and by reducing motivation (Martinez et al., 2011; Gottfried, 1982), hamper learning and performance (Tobias & Deutsch, 1980; Sanders-Reio, 2010) raised physiological problems such as ugly handwriting and abdominal pain; affected negatively their writing skills. Writing anxiety, which may increase due to some of these problems, prevents the development of mind-language skills as well as writing and causes the person to feel more inadequate and avoid writing. However, instead of escaping from writing, anxiety and anxiety-related problems can be overcome by doing motivating stable writing exercises (Heaney, 2011; Reeves, 1997). Writing skill is a multidimensional process that requires energy and effort. This process causes students to feel inadequate and unsuccessful, and their motivation to write decreases (Çakır, 2010).

Motivation is the energy that activates the person for a specific purpose. Motivation arising from factors such as impulse, desire, need (Freud, 2019; Wentzel, 1996; Maslow, 1991; Murray, 1960), as it ensures willingness to continue with the targeted action (Jung 2016; Selçuk, 2010; Wlodkowski, 1978), it is an important factor in the acquisition and successful use of knowledge and skills (Ormrod, 2006). At this point, the concept of academic motivation emerges. Academic motivation affects academic success by supporting skills such as learning, processing and managing information. (Amrai et al., 2011). Academic motivation necessitates students to initiate learning and engage in the process with interest, while also adjusting their beliefs and attitudes following the learning process (Ames, 1990). Academic motivation is regulated by internal elements, such as goals, curiosity, interest, personal preferences, and talents, as well as external influences, such as teachers and family (Hidi & Harackiewicz, 2000). Internal motivation pertains to a student's inherent fascination with a certain subject, whereas external motivation is influenced by the rewards or incentives linked to the process of learning (Ryan & Deci, 2000). Also, a lack of motivation is characterized by a lack of initiative or drive to acquire knowledge or take action. The quality of education and the academic motivation that influences academic achievement also affect the language skills that form the basis of academic tasks (Fillmore, 1976). The tiring process of writing skill highlights motivation. Troia et al. (2012) asserted that motivation for writing skills is distinct from motivation for other language skills, and that it plays a significant role in the development of students' writing abilities.

Motivation is required for successful and effective writing (Ling et al., 2021; Latif, 2019; Wilson & Czik, 2016). It supports factors such as motivation to write, willingness to write, attention, care, self-efficacy perception, and enables the individual to use skills such as creativity, self-regulation, analysis-synthesis and sequencing in the writing process. Besides, self-efficacy belief (Pajares, 2003), knowledge and skill level, self-regulation skill, problem solving skills and writing habit (Burning & Horn, 2000; Iran-Nejad et al., 2007), metacognitive thinking (Aston, 1994); decreases anxiety while writing increases motivation and performance, (Pajares et al., 2007). However, writing motivation, anxiety, distress, interest, etc. it's prevented emotions and ensures the continuity of writing desire (Boscolo et al., 2006). Problems experienced in the writing process decrease the motivation of writing (Pajares et al., 2006), negatively affect the students' self-confidence and academic achievement and motivation. When the views of Pajares et al. (2006) and Boscolo et al. (2006) are evaluated, the

relationship between writing anxiety and writing motivation draws attention, and the idea that writing motivation can also predict academic motivation emerges. In addition, it strengthens the idea that writing anxiety may be related to academic motivation, especially through writing motivation. The writing anxiety of secondary school students, who have learned the writing skill and are now in an important period of development towards the functional writing process, can pose an important problem for their writing success and academic motivation. Therefore, writing motivation should be supported for a quality education and to decrease writing anxiety.

## **Problem Situation**

Writing anxiety is one of the effects that prevent the writing process from being carried out successfully. Problems experienced in the writing process reduce writing motivation (Pajares et al., 2006), negatively affecting students' self-confidence, academic success and motivation. Therefore, examining the relationship between students' writing anxiety, motivation and academic motivation is thought to be important for both their writing development and academic success. Relationships between students' writing motivations and writing skills were examined (Akyol & Aktaş, 2018; Canitezzer, 2014; Graham et al., 2018; Ersoy ve Çetin, 2023; Fatihi et al., 2023; Liao & Wong, 2010; Süğümlü et al., 2019; Takımcıgil Özcan, 2014). The relationship between students' academic motivation and their desire to communicate in a second language has been examined (Cao, 2022). The academic motivation of students and foreign language anxiety have been examined (Heydarnejad et al., 2022). Between students' writing anxiety and language learning motivations (Alico, 2016; Sabti et al., 2019; Silva et al., 2016; Zerey & Müjdecı, 2023), self-efficacy perceptions at the level of language difficulties with their level of motivation (Brouwer, 2010), between writing anxiety and motivations at a moderate level (Akbarov & Aydođan, 2018; Ngeow, 2007; Rahimi & Zhang, 2019; Siska et al., 2021; Soleimani et al., 2020; Tunagür, 2021), between writing anxiety and self-efficacy (Martinez et al., 2011) meaningful relationships were found. Nevertheless, there was no discernible association observed among the students' levels of writing anxiety, writing motives, and writing talents (Tsao et al, 2017). Significant relationships were found between students' writing anxiety, motivation and self-efficacy perceptions (Piniel ve Csizér, 2015; Wiltse, 2000) However, the relationship between middle school students' writing anxiety and motivation, academic motivation has not been examined, it is a gap that needs to be filled in the literature for the development of writing. In this study, it was aimed to examine the relationship between secondary school students' writing anxiety, writing motivation and academic motivation using SEM.

## **Purpose and Significance of the Study**

The main purpose of writing education is to give students the habit of using their writing skills functionally throughout life. In achieving this basic goal, students' attitudes towards writing, such as anxiety, fear, desire and motivation, have an impact on their ability to create original and aesthetic texts. The purpose of this study is to determine the relationship between middle school students' writing anxiety, writing motivation and academic motivation. For this purpose, it is aimed to contribute to the literature.

## Method

Quantitative research method was used in the research. This research method is based on the collection of numerical data and its evaluation with numerical expressions.

### Research Design

The research was carried out with the correlational desing. The researches carried out with the correlational desing are carried out on the sample selected from a universe, and it is aimed to numerically describe the trends, attitudes or views across the universe (Creswell, 2018). In this context, structural equation model was used in determining the relations. This type of research is based on determining the direction and magnitude of the effect of at least one independent variable on at least one dependent variable. In correlational research; The fundamental weakness, which arises from the illusion that one variable causes the other due to the possibility of a third variable or variables affecting the relationship between two variables, can be improved by path analysis (Christensen et al., 2015).

### Universe and Sample

The population of this research consist of secondary school students in the 2020-2021 academic year in Turkey. Since the universe of the research is too large to be reached, the accessible universe (Fraenkel et al., 2011) is the public secondary school students in Elazig province center in 2020-2021.

**Table 1**

*Sample of the research*

Demographic characteristics		<i>n</i>	%
<b>Grade</b>	5 <sup>th</sup> grade	236	22.76
	6 <sup>th</sup> grade	250	24.11
	7 <sup>th</sup> grade	283	27.29
	8 <sup>th</sup> grade	268	25.84
<b>Gender</b>	Female Student	577	55.64
	Male Student	460	44.36
<b>Total</b>		<b>1037</b>	<b>100</b>

There are 41 secondary schools and 5 education districts in the accessible universe. Random sampling was used to select 2 secondary schools from each educational district. These secondary schools name were written on identical papers, divided into bags according to the education regions, a random school choosing by mixing the schools in the bags thoroughly, and they were taken back to the bag by taking note. When the same school was choosing, the process was repeated until the different school was selected.

The sample of the research is 1037 secondary school students, 577 of whom are females and 460 of them are males. Since the target universe is 27.150, the confidence level of the sample with 1037 elements for  $\alpha=.03$  is 97% (Çingü cited in 1994, Büyüköztürk et al., 2014), the margin of error is  $\pm 3$  (A. Can, 2018).

## Data Collection Tools

### *The Writing Motivation Scale*

Cronbach's alpha (.89) reliability coefficients of the scale, which was developed by researchers for students aged 9.5-14, with a single factor of 13 items, are quite reliable, internal consistency (.85) and structural reliability of the factors (.89) are at a good level. (Deniz & Demir, 2020). The scale was confirmed by confirmatory factor analysis ( $\chi^2=83.05$ ,  $sd=61$ ,  $RMSEA=.038$ ,  $GFI=.95$ ,  $AGFI=.93$ ,  $CFI=.99$ ,  $NNFI=.99$ ,  $NFI=.97$ ,  $SRMR=.039$ ).

### *The Writing Anxiety Scale*

Cronbach's alpha reliability coefficients of the scale developed by Deniz and Demir (2019) in five-point likert type which includes three-dimensional 26-items; the Writing Process is .85, Avoidance is .84, Writing Pleasure is .74, and across the scale is .89. The building reliability Writing Process of the factors is .92, Avoidance is .93, Writing Pleasure is .72. The internal consistency coefficient (.88) of the scale confirmed by confirmatory factor analysis is good ( $X^2/sd=2.13$ ,  $X^2-sd=333.02$ ,  $RMSEA=.042$ ,  $NFI=.94$ ,  $NNFI=.96$ ,  $CFI=.97$ ,  $GFI=.91$ ,  $AGFI=.90$ ,  $SRMR=.052$ ).

### *Scale of Motivation in Education*

The scale developed in 12-item with five-point likert in French (Vallerand & Thill, 1989), Kara (2008) adapted the 12-item triple-type likert in to Turkish. Reliability values of the scale; Consubstantiated Extrinsic Motivation is .79, Internally Extrinsic Motivation Reflected Internal is .80, Intrinsic Motivation is .78 and Unmotivation .78 is .84 for the overall scale. The scale was confirmed by Fidan and Eren (2017, p.485) ( $\chi^2(58)=170.72$ ;  $\chi^2/df=2.94$ ;  $TLI=.92$ ;  $CFI=.93$ ;  $RMSEA=.05$ ).

## Data Collection Process

In order to carry out the research, the necessary permissions were obtained from the "Firat University Social and Humanities Scientific Research Ethics Committee", the Publication Ethics Board", the "Ministry of National Education" and the governorship of Elazığ province. Then, school administrators were interviewed and border and branch information and application permissions were obtained. In the data collection process, "parent consent form" and "participant consent form" were used. It is based on willingness.

## Data Analysis

Structural equation modeling, unlike traditional regression analysis, enables researchers to develop and test multivariate complex models by taking measurement errors of observed variables into account (Karagöz, 2017). Multiple normality analysis was performed, and the kurtosis and skewness values of the observed variables were found to be between +2 and -2 (Tabachnick & Fidell, 2013) In this direction, it can be said that these values and graphics indicate a normal distribution.

Correlation test, structural regression and hierarchical regression analysis were carried out to determine the relationship direction and level of dependent and independent variables. According to Davis (1971), the interpretation of the correlation coefficient ( $r$ ) is a negligible

relationship between 01 and .09; low relationship between .10 and .29; medium from .30 to .49; strong from .50 to .69; .70 and after, as a very strong relationship; according to Cohen (1988), the multiple regression coefficient,  $.0196 \geq R^2$  is small;  $.1300 \geq R^2$  medium;  $.2600 \geq R^2$  is interpreted as large effect size (S. Özsoy & G Özsoy, 2013).

## Trustworthiness

Cronbach's alpha coefficients are high in the Writing Motivation Scale (.92), the Writing Anxiety Scale (.88) and the sub-dimensions (.80); Scale of Motivation in Education (.43) is low, the scale's Consubstantiated Extrinsic Motivation (.67), Unmotivated (.72), Extrinsic Motivation Reflected Internal (.70), Intrinsic Motivation (.71) dimensions are quite reliable.

## Role of the Researcher

The introduction, findings, discussion and implications were written by first autor, who conducted the data collection and analysis process. Introduction, methods and conclusion were written by Demir, who designed the research and carried out the analysis.

## Ethical Issues

Collect the data, necessary permissions were obtained from the "Firat University Social and Human Sciences Scientific Research" with decision numbered 10, and Publication Ethics Committee" and the "Ministry of National Education" with the document numbered 97132852/302.14.01.

## Findings

In this section, the findings obtained from the analyzes are tabulated and interpreted.

**Table 2**

*Multiple Linear Correlation Results*

Scales	1.	1.1.	1.2	1.3.	2	3.	3.1.	3.2.	3.3.	3.4.
1. WRITING ANXIETY		.71**	.82**	.81**	-.65**	-.37**	-.26**	.42**	.37**	-.40**
1.1. Writing Process			.57**	.25**	-.27**	-.21**	-.18**	.33**	.28**	-.17**
1.2. Avoidance				.46**	-.37**	-.34**	-.25**	.47**	.42**	-.35**
1.3. Writing Pleasure					-.76**	-.31**	-.18**	.24**	.21**	-.38**
2. WRITING MOTIVATION						.33**	.20**	-.23**	-.18**	.38**
3. ACADEMIC MOTIVATION							.64**	-.64**	-.10**	.73**
3.1. Consubstantiated Extrinsic Motivation								-.32**	-.36**	.36**
3.2. Unmotivated									.50**	-.39**
3.3.Extrinsic Motivation Reflected Internal										-.38**
3.4. Intrinsic Motivation										

\* $p < .05$ , \*\* $p < .01$

In Table 2, a very strong negative correlation was found between writing motivation and writing pleasure ( $r=-.76$ ,  $p<.01$ ). This is an indicator that anxiety meaningful reduces writing pleasure and motivation. A strong negative relationship between writing anxiety and writing motivation ( $r=-.65$ ,  $p<.01$ ) shows that anxiety towards writing meaningfully reduces writing motivation and habit.

Writing anxiety with academic motivation ( $r=-.37$ ,  $p<.01$ ), intrinsic motivation ( $r=-.40$ ,  $p<.01$ ); avoidance with academic motivation ( $r=-.34$ ,  $p<.01$ ), intrinsic motivation ( $r=-.35$ ,  $p<.01$ ); negatively between academic motivation ( $r=-.31$ ,  $p<.01$ ) and intrinsic motivation ( $r=-.38$ ,  $p<.01$ ); unmotivated with writing anxiety ( $r=.42$ ,  $p<.01$ ), extrinsic motivation reflected internal ( $r=.37$ ,  $p<.01$ ); unmotivated with the writing process ( $r=-.33$ ,  $p<.01$ ); there was a moderate positive correlation between avoidance and unmotivation ( $r=.47$ ,  $p<.01$ ) and extrinsic motivation reflected internal ( $r=.42$ ,  $p<.01$ ). It can be said that writing anxiety, which is one of the basic skills of students during the education process, negatively affects academic attitude and success.

There is a moderate positive correlation between writing motivation and academic motivation ( $r=.33$ ,  $p<.01$ ) and intrinsic motivation ( $r=.38$ ,  $p<.01$ ); a low negative correlation was found between writing motivation and unmotivation ( $r=-.23$ ,  $p<.01$ ) and extrinsic motivation reflected internal ( $r=-.18$ ,  $p<.01$ ). Extrinsic motivation associated with writing anxiety ( $r=-.26$ ,  $p<.01$ ); academic motivation with writing process ( $r=-.21$ ,  $p<.01$ ), consubstantiated extrinsic motivation ( $r=-.18$ ,  $p<.01$ ) and intrinsic motivation ( $r=-.17$ ,  $p<.01$ ); academic motivation by avoidance ( $r=-.25$ ,  $p<.01$ ); negatively between writing pleasure and academic motivation ( $r=-.18$ ,  $p<.01$ ); academic motivation with writing process ( $r=-.21$ ,  $p<.01$ ), consubstantiated extrinsic motivation ( $r=.28$ ,  $p<.01$ ), unmotivated with writing pleasure ( $r=.24$ ,  $p<.01$ ) and inward positive meaningful relationships were determined between the extrinsic motivation reflected internal ( $r=.21$ ,  $p<.01$ ). Findings pointing to the role of language skills in ensuring mental, psychological and affective development can be considered as indicators of the effect of writing motivation and anxiety, as well as writing skills, on academic success.

**Table 3**

*Multiple Linear Correlation Results According to Gender Variable*

Gender	Scales	2. WRITING MOTIVATION	3. ACADEMIC MOTIVATION	3.1. Consubstantiated Extrinsic Motivation	3.2. Unmotivated	3.3. Extrinsic Motivation Reflected Internal	3.4. Intrinsic Motivation
Female	1. WRITING ANXIETY	-.70**	-.30**	-.17**	.39**	.33**	-.35**
	1.1. Writing Process	-.37**	-.22**	-.14**	.34**	.26**	-.22**
	1.2. Avoidance	-.42**	-.27**	-.18**	-.43**	.40**	-.31**
	1.3. Writing Pleasure	-.75**	-.24**	-.11*	.21**	.18**	-.32**
	2. WRITING MOTIVATION		-.26**	.13**	-.21**	-.15**	.30**
Male	1. WRITING ANXIETY	-.58**	-.43**	-.34**	.44**	.37**	-.42**
	1.1. Writing Process	-.16**	-.21**	-.23**	.33**	.30**	-.15**
	1.2. Avoidance	-.29**	-.39**	-.31**	-.49**	.40**	-.36**
	1.3. Writing Pleasure	-.75**	-.37**	-.25**	.24**	.18**	-.41**
	2. WRITING MOTIVATION		.38**	.25**	-.21**	-.16**	.43**

**Table 3***Continue*

Gender	Scales	2. WRITING MOTIVATION	3. ACADEMIC MOTIVATION	3.1. Consubstantiated Extrinsic Motivation	3.2. Unmotivated	3.3. Extrinsic Motivation Reflected Internal	3.4. Intrinsic Motivation
	<b>1. WRITING ANXIETY</b>	<b>-3.28**</b>	<b>2.41*</b>	<b>2.92**</b>	-0.97	-0.73	1.32
	<b>1.1. Writing Process</b>	<b>-3.63**</b>	-.17	1.49	.18	-.69	-1.16
<b>Zdifference</b>	<b>1.2. Avoidance</b>	<b>-2.39*</b>	<b>2.16*</b>	<b>2.22*</b>	-1.04	.00	.90
	<b>1.3. Writing Pleasure</b>	.00	<b>2.30*</b>	<b>2.32*</b>	-.51	.00	1.66
	<b>2. WRITING MOTIVATION</b>	.00	-1.66	<b>-1.99*</b>	.00	.16	<b>-2.41*</b>

\*p&lt;.05, \*\*p&lt;.01

In Table 3, writing anxiety and writing motivation relationships meaningfully differ between females ( $r=-.70$ ,  $p<.01$ ) (negative/very strong) and males ( $r=-.58$ ,  $p<.01$ ) (negative/strong). The difference between writing motivation and writing process relationships is meaningfully in females ( $r=-.37$ ,  $p<.01$ ) (negative/medium), males ( $r=-.16$ ,  $p<.01$ ) (negative/low). ( $-3.63<2.58$ ,  $p<.01$ ). Writing motivation and avoidance relationships differ meaningful between females ( $r=-.42$ ,  $p<.01$ ) (negative/medium), males ( $r=-.29$ ,  $p<.01$ ) (negative/low) ( $-2.39<1.96$ ,  $p<.05$ ). Relationships between academic motivation and writing anxiety, avoidance, and writing pleasure were found to differ meaningfully between females and males ( $p<.05$ ). The relationship between extrinsic motivation and writing anxiety in females ( $r=-.17$ ,  $p<.01$ ) (negative/minor) and males ( $r=-.34$ ,  $p<.01$ ) (negative/moderate) differ meaningfully ( $2.92<2.58$ ,  $p<.01$ ). The difference between the relationships between girls' extrinsic motivation and writing motivation ( $r=.13$ ,  $p<.01$ ), avoidance ( $r=-.18$ ,  $p<.01$ ) and writing pleasure ( $r=-.11$ ,  $p<.01$ ), and the relationship between males' extrinsic motivation ( $r=-.25$ ,  $p<.01$ ), writing motivation, avoidance ( $r=-.31$ ,  $p<.01$ ) and writing pleasure ( $r=-.25$ ,  $p<.01$ ) are meaningfully ( $p<.05$ ). It can be said that the relationship between writing anxiety and academic motivation is higher as a result of men's interest in numerical fields and language skills lagging behind. The relationship between intrinsic motivation and writing motivation differs meaningfully in females ( $r=.30$ ,  $p<.01$ ) (positive/medium) and males ( $r=.43$ ,  $p<.01$ ) (negative/medium) ( $-2.41<1.96$ ,  $p<.05$ ).

As a result of the structural regression analysis, it was observed that p value (.00000) was meaningful at the level of .01. Since structural regression and path analysis are carried out with large samples, p value is meaningful, alternative fit indices should be considered for model fit (Çokluk et al., 2012). Standardized error loads (greater than .30 or less than .90) of all items are desirably at the level of .05; the t-values (above 2.58) are meaningful at .01 level. Therefore, it can be said that the analysis can be continued with all items.

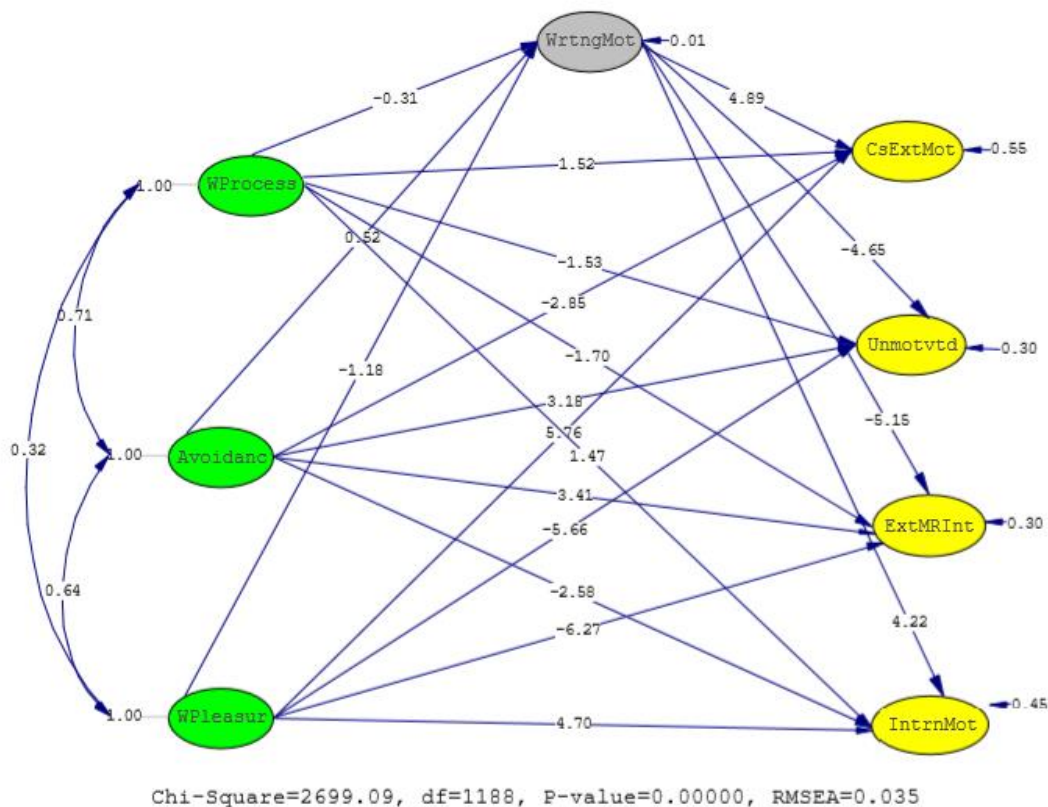


**Table 4**  
*Model Fit Extents*

Fit Extents	Value	Fit
$\chi^2$	2699.09	$p > .05$
$\chi^2/df=1188$	2.27	Perfect Fit
RMSEA	.035	Perfect Fit
Standardized RMR	.045	Perfect Fit
NFI	.97	Perfect Fit
NNFI	.98	Perfect Fit
CFI	.98	Perfect Fit
GFI	.91	Good Fit
AGFI	.90	Good Fit

The chi-square value 2699.09 ( $\chi^2 > .05$ ) is not as meaningful as desired.  $\chi^2/df$  (2699.09/1188) ratio being less than 3 at 2.27 indicates that the model has a perfect fit (Sumer, 2000). RMSEA's .035 (RMSEA  $< .05$ ), SRMR's .045 (SRMR  $< .05$ ), NFI, NNFI and CFI values above .95 fit perfectly; GFI and AGFI values above .90 indicate good fit. Findings indicate that the structural model has a good fit. (Table 4).

**Figure 1**  
*Structural model*



A negative statistical relationship was found between the writing process and writing pleasure variables, which are the sub-dimensions of the Writing Anxiety Scale, and the writing

motivation latent variables (Figure 1). It can be said that a one-point increase in the writing process variable causes a decrease of .31 points in the latent variable of motivation for writing and a one-point increase in writing pleasure causes a 1.18 point decrease in students' writing motivation. While there were positive correlations between writing process and writing motivation, extrinsic motivation and intrinsic motivation associated with writing variables, negative correlations were found between writing process and writing pleasure variables and the implicit extrinsic motivation and unmotivated latent variables. With the avoidance sub-dimension, positive correlations were detected between the extrinsic motivation and intrinsic motivation, and the negative correlation between consubstantiated extrinsic motivation and intrinsic motivation. Meaningful positive relationships were found between the extrinsic motivations of the secondary school students associated with their writing motivations and their intrinsic motivations. Structural relationships were determined negatively between students' writing motivations, inwardly extrinsic motivation reflected internals and unmotivated in education.

**Table 5***Structural Relationship and Equations Between Extrinsic Latent Variables*

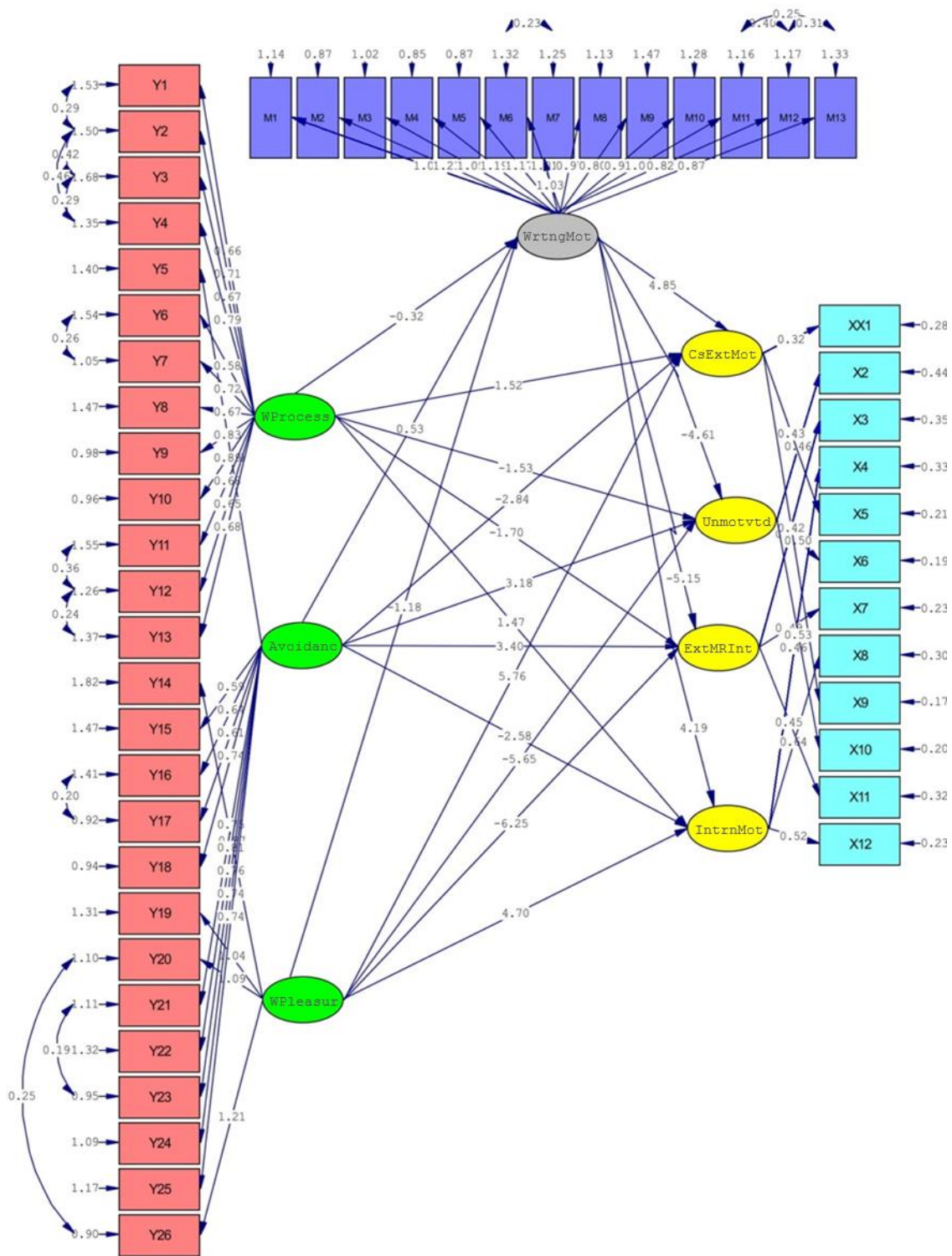
Structural Relationships	Standardized Loads	t-value
Writing Process→Consubstantiated Extrinsic Motivation	1.52	3.21
Writing Process→Unmotivated	-1.53	-3.29
Writing Process→Extrinsic Motivation Reflected Internal	-1.70	-3.35
Writing Process→Intrinsic Motivation	1.47	3.70
Writing Process→Writing Motivation	-.31	-6.71
Avoidance→Consubstantiated Extrinsic Motivation	-2.85	-3.78
Avoidance→Unmotivated	3.18	4.29
Avoidance→Extrinsic Motivation Reflected Internal	3.41	4.21
Avoidance→Intrinsic Motivation	-2.58	-4.09
Avoidance→Writing Motivation	.52	9.08
Writing Pleasure→Consubstantiated Extrinsic Motivation	5.76	3.44
Writing Pleasure→Unmotivated	-5.66	-3.45
Writing Pleasure→Extrinsic Motivation Reflected Internal	-6.27	-3.49
Writing Pleasure→Intrinsic Motivation	4.70	3.35
Writing Pleasure→Writing Motivation	-1.18	-21.65
Writing Motivation→Consubstantiated Extrinsic Motivation	4.89	3.43
Writing Motivation→Unmotivated	-4.65	-3.33
Writing Motivation→Extrinsic Motivation Reflected Internal	-5.15	-3.37
Writing Motivation→Intrinsic Motivation	4.22	3.54
Structural Equations		R <sup>2</sup>
Writing Motivation=-0.32*Writing Process+0.53*Avoidance-1.19*Writing Pleasure		.99
Consubstantiated Extrinsic Motivation=4.85*Writing Motivation+1.52*Writing Process-2.84*Avoidance+5.76*Writing Pleasure		.45
Unmotivated=-4.61* Writing Motivation-1.53* Writing Process+3.18*Avoidance-5.65*Writing Pleasure		.70
Extrinsic Motivation Reflected Internal=-5.09*Writing Motivation-1.70*Writing Process+3.40*Avoidance-6.25*Writing Pleasure		.70
Intrinsic Motivation =4.19*Writing Motivation+1.47*Writing Process-2.58*Avoidance+4.70*Writing Pleasure		.55

**Table 5***Continue*

<b>Reduced Form Equations</b>	<b>R<sup>2</sup></b>
Writing Motivation=-0.32* Writing Process+0.53*Avoidance-1.19*Writing Pleasure	.99
Consubstantiated Extrinsic Motivation=-0.020*Writing Process-0.29*Avoidance-0.031*Writing Pleasure	.11
Unmotivated=- 0.069* Writing Process+0.76*Avoidance-0.15*Writing Pleasure	.39
Extrinsic Motivation Reflected Internal=-0.084* Writing Process+0.72*Avoidance-0.17*Writing Pleasure	.32
Intrinsic Motivation=0.15* Writing Process-0.38*Avoidance-0.30*Writing Pleasure	.30

The writing process experienced by middle school students for writing explains 99% of the writing motivations of measured anxiety of avoidance and writing pleasure latent variables (Table 5). While writing process, avoidance and writing pleasure latent variables explain 11% of consubstantiated extrinsic motivation, this rate increased to 45% when writing motivation was added to the equality. Although writing process, avoidance and writing pleasure variables explained 39% of the unmotivation and 32% of the extrinsic motivation reflected internal, it was observed that the regression coefficient for the two equations increased to 70% with the addition of writing motivation as the predictive variable. While the intrinsic motivation latent variable of the writing process, avoidance and writing pleasure variables predicted 30%, it was determined that the predictive rate increased to 55% with the addition of writing motivation as the predictive variable (Table 5).

**Figure 2**  
Structural regression path analysis



Chi-Square=2699.09, df=1188, P-value=0.00000, RMSEA=0.035

After the proposed modifications among observed variables M12-M11, Y4-Y2, Y12-Y11, Y26-Y20, Y13-Y12, Y3-Y2, Y7-Y6, Y2-Y1, Y23-Y21, Y17-Y16, M13-M11, M7-M6, M12-M13 and Y3-Y4 which will contribute the most to  $X^2$  among the second part correction indices; while  $X^2$  value from 3580.51 fell to 2699.09, df from 1202 to 1188, RMSA from .044 to .035;

AGFI from .87 increased to .91. Therefore, it can be said that the modification performed strengthens the model fit (Figure 2).

**Table 6**  
*Hierarchical Regression Analysis Results*

WRITING ANXIETY	B	SHB	$\beta$	t	p	R <sup>2</sup>	R <sup>2</sup> change	F	F change	p
<b>Model 1</b>	3.788	.053		71.679	.000					
WRITING MOTIVATION	-.450	.016	-.654	-27.791	.000	.43	.427	772.318	772.318	.000
<b>Model 2</b>	3.114	.072		43.107	.000					
WRITING MOTIVATION	-.405	.015	-.588	-26.158	.000	.51	.078	527.776	162.628	.000
Unmotivated	.121	.009	.287	12.753	.000					
<b>Model 3</b>	2.955	.075		39.202	.000					
WRITING MOTIVATION	-.398	.015	-.577	-26.080	.000	.52	.018	377.778	38.995	.000
Unmotivated	.089	.011	.211	8.368	.000					
Extrinsic Motivation Reflected Internal	.066	.011	.156	6.245	.000					
<b>Model 4</b>	3.141	.114		27.473	.000					
WRITING MOTIVATION	-.387	.016	-.562	-24.150	.000					
Unmotivated	.084	.011	.199	7.745	.000	.53	.002	285.529	4.710	.000
Extrinsic Motivation Reflected Internal	.061	.011	.144	5.647	.000					
Intrinsic Motivation	-.023	.011	-.055	-2.170	.030					
<b>Model 5</b>	3.200	.149		21.484	.000					
WRITING MOTIVATION	-.386	.016	-.561	-24.079	.000					
Unmotivated	.083	.011	.197	7.628	.000	.53	.000	228.362	.380	.000
Extrinsic Motivation Reflected Internal	.060	.011	.141	5.421	.000					
Intrinsic Motivation	-.022	.011	-.051	-2.001	.046					
Consubstantiated Extrinsic Motivation	-.008	.012	-.015	-.616	.538					

In Table 6, regression equality included writing motivation in the first step, academic motivation in the second step, extrinsic motivation reflected in education in the third step, intrinsic motivation in education in the fourth step, and consubstantiated extrinsic motivation in education in the last step. It is observed that the 5 models realized are also meaningful. In the first model ( $f(1035-1)=527.776$ ,  $p<.01$ ), writing anxiety ( $\beta=-.654$ ) was found to be a meaningful predictor of writing motivation ( $R=.65$ ,  $R^2=.43$ ). In Model 2 ( $f(1034-2)=527.776$ ,  $p<.01$ ), which contributes meaningful, respectively, writing motivation ( $\beta=-.588$ ) and unmotivation ( $\beta=.287$ ) at a large level ( $R=.71$ ).  $R^2=.51$ ); according to the 3rd model ( $f(1033-3)=377.778$ ,  $p<.01$ ),

respectively, the motivation of writing ( $\beta=-.577$ ), unmotivation ( $\beta=.211$ ) and inwardly extrinsic motivation reflected internal ( $\beta=.156$ ) ( $R=.72$ ,  $R^2=.52$ ); according to model 4 ( $f(1032-4)=285.529$ ,  $p<.01$ ), respectively, writing motivation ( $\beta=-.562$ ), unmotivation ( $\beta=.199$ ), inwardly extrinsic motivation reflected internal ( $\beta=.144$ ) and intrinsic motivation ( $\beta=-.055$ ) great level ( $R=.73$ ,  $R^2=.53$ ); according to the 5th model ( $f(1031-5)=228.362$ ,  $p<.01$ ), respectively, writing motivation ( $\beta=-.561$ ), unmotivation ( $\beta=.197$ ), inwardly extrinsic motivation reflected internal ( $\beta=.141$ ), intrinsic It was determined that motivation ( $\beta=-.051$ ) and consubstantiated extrinsic motivation ( $\beta=-.015$ ) were predicted at a high level ( $R=.73$ ,  $R^2=.53$ ). While writing anxiety has a positive relationship with unmotivation and extrinsic motivation reflected internal; it shows a negative relationship with writing motivation, intrinsic motivation and identified consubstantiated extrinsic motivation. According to the last model, the regression equation regarding the predictive of writing motivation and intrinsic and extrinsic motivation for education is that; "Writing anxiety= $(-.386 \times \text{writing motivation scale score}) + (.083 \times \text{Unmotivated scale score}) + (.060 \times \text{extrinsic motivation reflected internal scale score}) + (-.022 \times \text{intrinsic motivation scale score}) + (-.008 \times \text{consubstantiated extrinsic motivation scale score}) + (3.200)$ ". In regression equation, writing anxiety explained 43% of the variance of writing motivation, this ratio increased to 51% with the addition of motivation towards education, and to 53% with the addition of intrinsic motivation; In the fifth stage, it is observed that it remains at 53% with the addition of consubstantiated extrinsic motivation (Table 6). Based on the findings, it can be said that writing anxiety reduces writing motivation of students and prevents writing and language development. The second highest relation of writing anxiety with the unmotivated dimension shows that, by decreasing academic motivation, it negatively affects students' learning and usage skills and their desire to learn.

### Conclusion, Discussion and Implications

There is a strong negative correlation relationship between writing anxiety and motivations of secondary school students, low relationships between writing motivations and writing process, medium relationships between avoidance and very strong relationships between writing pleasure. This is an indication that writing anxiety causes to avoid writing and decrease students' their writing motivation to. Likewise, a negative correlation has been found between anxiety about writing in a foreign language and motivation for writing (Sabti et al., 2019; Zerey & Mjdeci, 2023). Also it has been stated that adolescents' motivation to write affects their reading and writing skills (Magnifico, 2013). Nevertheless, there was no discernible association observed among the students' levels of writing anxiety, writing motives, and writing talents (Siska et al., 2021). However, while a moderate negative relationship was found between students' writing anxiety and writing motivation (Akbarov & Aydođan, 2018; Ngeow, 2007; Rahimi & Zhang, 2019; Soleimani et al., 2020), significant relationships were found between their motivational beliefs towards writing and their attitudes towards academic and digital writing (Graham et. all, 2018). A significant relationship was found between university students' language learning motivation and writing anxiety (Alico, 2016). Pajares (2003), stated that students' anxiety decreased their motivation to write because they negatively affected their self-efficacy. The findings indicate that peer results demonstrate a decrease in writing anxiety and an increase in writing motivation (Tunagr, 2021). Furthermore, the significant causal impact of writing anxiety on self-assessment of writing is unfavorable, but writing motivation has a positive effect (Tsao et al, 2017).

While there was a meaningful relationship between writing anxiety and unmotivation, intrinsic and extrinsic motivation reflected internal, there was no meaningful relationship with consubstantiated extrinsic motivation. It was found that middle school students' writing anxiety great predicted writing and academic motivation. Cao (2022) contends that students' academic motivation positively influences their inclination to engage in second language communication. It has been stated that intrinsic motivation allows students to be more successful in caring for the difficult tasks that demonstrate their competence, but the quality of the task is not important for students with extrinsic motivation (Garcia & Caso, 2004). In this respect, supporting the intrinsic motivation will affect the writing motivation positively. Relationships between the students' writing motivations and their extrinsic motivation reflected internals is low; a moderately meaningful relationship was found between their inner motivations. On the other hand, a low level of relation was found between negative feelings towards Turkish lessons and intrinsic and extrinsic motivation for education (Fidan & Eren, 2017). Likewise, a correlation has been discovered between the urge to learn English and the motivation to excel academically (Silva et al., 2016). Corroborating the results, it was ascertained that performance-oriented assessment diminished students' foreign language anxiety and bolstered their academic motivation (Heydarnejad et al., 2022). It has been determined that teachers' motivation strategies in the classroom affect students' writing skills, attitudes and self-confidence (Cheung, 2018). Similarly, moderately significant relationships were found between students' writing motivation and attitudes and their writing skills (Ersoy & Çetin, 2023). In experimental studies examining students' writing skills, writing anxiety and writing motivation together, it has been concluded that writing anxiety and motivation are negatively affected (Fatihi et al., 2023; Tunagür, 2021).

It was found that the relationship between males' writing motivation and anxiety was lower compared to females, and their relationship between writing motivations and intrinsic and consubstantiated extrinsic motivations, writing anxiety and academic motivations were higher. Therefore, motivation problems of females are mostly caused by anxiety, it can be said that the reason for men is avoiding from writing. Although they have more writing anxiety than boys, girls have higher self-confidence and motivation (Pajares & Valiante, 2001). Gömleksiz and Serhatlıoğlu (2014) determined that intrinsic, extrinsic and extrinsic motivation reflected internals of female teacher candidates for knowing and stimulation is higher than male candidates. Writing motivations of female students in the studies (Akyol & Aktaş, 2018; Bozgün ve Akın Kösterelioğlu, 2022; Brouwer, 2010; Süğümlü et al., 2019; Takımcıgil Özcan, 2014) and their academic motivations (Seyis, 2011) was found to be more than males. It was found that the relationship between cognitive difficulties of writing and writing motivations differed in terms of gender in the 5th and 8th grades (De Smedt et al., 2018). On the other hand, it was determined that the writing motivations of 8th grade students did not differ significantly according to the gender variable (Caniztezer, 2014). Akbarov and Aydoğan (2018) found that male students' writing motivation is higher than female students.

Reduce the anxiety of female students, process-based writing and evaluation should be adopted, and unreasonable negative thoughts about sharing the writings should be overcome. Topics can be selected for male students according to their interests writing strategies and activities such as writing blogs and sharing articles on the internet can be used.

Students or teachers' opinions can be taken at to reveal all factors affecting students' motivation and writing skills. Different and effective suggestions of solution can be reached through correlational design studies with other factors affecting students' motivation to write.

**Contribution Rate of the Researchers**

The contribution rate of the first author to the research is 60%, and the second author is 40%.

**Statement of Conflict of Interest**

Authors there's no financial/personal interest or belief that could affect their objectivity  
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## References

- Akbarov, A., & Aydoğan, H. (2018). The relationships between writing anxiety, motivation for English learning and self-reported English skills. *Journal of Linguistic Intercultural Education*, 11(1), 7-21.
- Akyol, H., & Aktaş, N. (2018). The relationship between fourth-grade primary school students' story-writing skills and their motivation to write. *Universal Journal of Educational Research*, 6(12), 2772-2779. <https://doi.org/10.13189/ujer.2018.061211>
- Alico, C. J. (2016). Writing anxiety and language learning motivation: Examining causes, indicators, and relationship. *Communication and Linguistics Studies*, 2(1), 6-12. <https://doi.org/10.11648/j.cls.20160201.12>
- Ames, C. A. (1990). Motivation: What teachers need to know. *Teachers college record*, 91(3), 409-421.
- Amrai, K., Motlagh, S. E., Zalani, H. A., & Parhon, H. (2011). The relationship between academic motivation and academic achievement students. *Procedia-Social and Behavioral Sciences*, 15, 399-402.
- Aston, J. A. (1994). Collaborative planning and the classroom context: tracking, banking, and transformations. *Making thinking visible: writing, collaborative planning and classroom inquiry*. L. Flower, D. L. Wallance, L. Norris & R. E. Burnett (Ed.). National Council of Teachers of English.
- Boscolo, P., Favero L. D., & Borghetto, M. (2006). Writing on an interesting topic: Does writing foster interest. *Writing and motivation*. 73-91. S. Hidi, & P. Boscolo (Ed.). Elsevier.
- Bozgün, K., & Akın Kösterelioğlu, M. (2022). İlkokul Dördüncü Sınıf Öğrencilerinin Yazma Motivasyonu. [Writing Motivation of Primary School Fourth Grade Students]. *Journal of Mother Tongue Education/Ana Dili Eğitim Dergisi*, 10(1), 119-135.
- Brouwer, K. L. (2010). *Writing motivation of students with specific language impairments* (Order No.3411993). Unpublished doctoral dissertation. The Graduate College at the University of Nebraska, Nebraska. Retrieved from: <https://search.proquest.com/docview/734722501?accountid=15927>
- Siska, S., Syahid, A., & Miftah, M. Z. (2021, December). The correlations among writing motivation, anxiety and proficiency. In *Proceedings of International Conference on English Language Teaching (INACELT)* (Vol. 5, No. 1, pp. 139-151).
- Burning, R., & Horn, C. (2000). Developing motivation to write. *Educational Psychologist*, 35(1), 25-37. [https://doi.org/10.1207/S15326985EP3501\\_4](https://doi.org/10.1207/S15326985EP3501_4)
- Büyüköztürk, S., Çakmak, E. K., Akgün, O. E. Karadeniz, S., & Demirel, F. (2014). *Bilimsel araştırma yöntemleri*. [Scientific research methods]. Pegem Akademi.
- Çakır, İ. (2010). Yazma becerisinin kazanılması yabancı dil öğretiminde neden zordur? [Why is writing skill difficult to gain in foreign language teaching?] *Erciyes Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 1(28), 1-12.
- Cao, G. (2022). Toward the favorable consequences of academic motivation and L2 enjoyment for students' willingness to communicate in the second language (L2WTC). *Frontiers in Psychology*, 13, 997566.
- Can, A. (2016). *SPSS ile bilimsel araştırma sürecinde nicel veri analizi*. [Quantitative data analysis in scientific research process with SPSS]. Pegem Akademi.
- Canitez, A. (2014). *8. sınıf öğrencilerinin yazma motivasyonları ile yazılı anlatım beceri düzeyleri üzerine bir araştırma*. [The writing motivations of eight grade students and their levels of success in writing]. Unpublished doctoral dissertation. Necmettin Erbakan University. Institute of Education Sciences, Konya.
- Cheung, Y. L. (2018). The effects of writing instructors' motivational strategies on student motivation. *Australian Journal of Teacher Education (Online)*, 43(3), 55. DOI 10.14221/ajte.2018v43n3.4
- Christensen, L. B., Johnson, B., & Turner, L. A. (2015). *Araştırma yöntemleri: Desen ve analiz*. Anı.

- Çokluk, Ö., Şekercioğlu, G., & Büyüköztürk, Ş. (2012). *Sosyal bilimler için çok değişkenli istatistik: SPSS ve LISREL uygulamaları*. [Multivariate statistics for social sciences: SPSS and LISREL applications]. (2<sup>nd</sup>. Ed.). Pegem.
- Creswell, J. W. (2018). *Research design: qualitative, quantitative, and mixed methods approaches*. SAGE.
- Deniz, H. (2018). *Öğrencilerin yazma kaygılarının yazma eğilimleriyle ilişkisi*. [The relation between students' writing anxiety with writing disposition]. Unpublished master's thesis. Firat University. Institute of Education Sciences, Elazığ.
- Deniz, H., & Demir, S. (2019). Development of the Writing Anxiety Scale: reliability and validity study. *International Journal of Turkish Literature Culture Education (TLCE)*. 8(2), <https://doi.org/1034-1051.10.7884/teke.4414>
- Deniz, H., & Demir, S. (2020). Development of the Writing Motivation Scale: reliability and validity study. *Cumhuriyet International Journal of Education*, 6(3-4), 269-286. <https://doi.org/10.30703/cije.640584>
- Ersoy, E., & Çetin, D. (2023). Investigation of the Relationship between the Writing Autonomy and Writing Skill of Students Learning Turkish as a Foreign Language. *Shanlax International Journal of Education*, 11, 114-131. <https://doi.org/10.34293/education.v11iS1-July.6117>
- Eysenck, M. W., Derakshan, N., Santos, R., & Calvo, M. G. (2007). Anxiety and cognitive performance: attentional control theory. *Emotion*. 7(2). 336-353. <https://doi.org/10.1037/1528-3542.7.2.336>
- Fathi, J., Rahimi, M., & Liu, G. Z. (2023). A preliminary study on flipping an English as a foreign language collaborative writing course with video clips: Its impact on writing skills and writing motivation. *Journal of Computer Assisted Learning*, 39(2), 659-675. <https://doi.org/10.1111/jcal.12772>
- Fidan, M., & Eren, A. (2017). Relationships between the profiles of middle school students' attitudes towards Turkish course and motivations for education. *Hacettepe University Journal of Education*, 32(2), 480-493. <https://doi.org/10.16986/HUJE.2017024892>
- Fillmore, L. W. (1976). *The second time around: Cognitive and social strategies in second language acquisition*. Stanford University.
- Fraenkel, J. R., Wallen, N. E., & Hyun, H. H. (2011). *How to design and evaluate research in education*. McGraw-Hill Humanities/Social Sciences/Languages.
- Freud, S. (2019). *İçguduler ve baskılama*. [Instincts and their vicissitudes (1915)]. (D. Öztürk Trans.). Tutku.
- Garcia, J. N., & de Caso, A. M. (2004). Effects of a motivational intervention for improving the writing of children with learning disabilities. *Learning Disability Quarterly*, 27(3), 141-159. <https://doi.org/10.2307/1593665>
- Gömlüksiz, M. N., & Serhatlıoğlu, B. (2014). Prospective teachers' perceptions of academic motivation levels. *The Journal of Turkish Social Research*, 17(3), 99-128.
- Gottfried, A. E. (1982). Relationships between academic intrinsic motivation and anxiety in children and young adolescents. *Journal of School Psychology*, 20(3), 205-215. [https://doi.org/10.1016/0022-4405\(82\)90050-4](https://doi.org/10.1016/0022-4405(82)90050-4)
- Graham, S., Daley, S. G., Aitken, A. A., Harris, K. R., & Robinson, K. H. (2018). Do writing motivational beliefs predict middle school students' writing performance? *Journal of Research in Reading*, 41(4), 642-656. DOI:10.1111/1467-9817.12245
- Heydarnejad, T., Tagavipour, F., Patra, I., & Farid Khafaga, A. (2022). The impacts of performance-based assessment on reading comprehension achievement, academic motivation, foreign language anxiety, and students' self-efficacy. *Language Testing in Asia*, 12(1), 1-21.
- Iran-Nejad, A., Watts, J. B., Venugopalan, G., & Xu, Y. (2007). The wholetheme window of dynamic motivation in writing to learn critical thinking: a multiple—source perspective. *Writing and motivation*. 31-50. S. Hidi & P. Boscolo (Ed.). Elsevier.
- Jung, C. G. (2016). *Analitik psikoloji Sözlüğü*. (N. Nirven Trans.). Pinhan Yayıncılık.

- Karagöz, Y. (2017). *SPSS ve AMOS uygulamalı nitel-nicel-karma bilimsel araştırma yöntemleri ve yayın etiği*. [SPSS and AMOS applied qualitative-quantitative-mixed scientific research methods and publication ethics]. Nobel.
- Latif, M. M. A. (2019). Unresolved issues in defining and assessing writing motivational constructs: A review of conceptualization and measurement perspectives. *Assessing Writing*, 42. <https://doi.org/0.1016/j.asw.2019.100417>
- Liao, M. T., & Wong, C. T. (2010). Effects of dialogue journals on L2 students' writing fluency, reflections, anxiety, and motivation. *Reflections on English Language Teaching*, 9(2), 139-170.
- Ling, G., Elliot, N., Burstein, J. C., McCaffrey, D. F., MacArthur, C. A., & Holtzman, S. (2021). Writing motivation: A validation study of self-judgment and performance. *Assessing Writing*, 48, 100509. <https://doi.org/10.1016/j.asw.2020.100509>
- Magnifico, A. M. (2013). "Well, I have to write that." a cross-case qualitative analysis of young writers' motivations to write. *International Journal of Educational Psychology*, 2(1), 19-55. <https://doi.org/10.4471/ijep.2013.17>
- Martinez, C. T., Kock, N., & Cass, J. (2011). Pain and pleasure in short essay writing: Factors predicting university students' writing anxiety and writing self-efficacy. *Journal of Adolescent & Adult Literacy*, 54(5), 351-360. <https://doi.org/10.1598/JAAL.54.5.5>
- Maslow, A. H. (1943). A theory of human motivation. *Psychological review*, 50(4), 370.
- Murray, H. A. (1960). Historical trends in personality research. *Perspectives in Personality Research*, 3-39. Springer Science+ Business Media.
- Ngeow, K. Y. (2007). "If I don't do, I lose": A grounded theory study of Chinese adult learners' writing motivation (Order No.3243794). Unpublished doctoral dissertation. Indiana University, School of Education, Bloomington. Retrieved from: <https://search.proquest.com/docview/304855257?accountid=15927>
- Ormrod, J. E. (2006). *Essentials of educational psychology*. Pearson.
- Özsoy, S., & Özsoy, G. (2013). Effect size reporting in educational research. *Elementary Education Online*, 12(2), 334-346.
- Pajares, F. (2003). Self-efficacy beliefs, motivation, and achievement in writing: A review of the literature. *Reading & Writing Quarterly*, 19(2), 139-158. <https://doi.org/10.1080/10573560308222>
- Pajares, F., & Valiante, G. (2001). Gender differences in writing motivation and achievement of middle school students: A function of gender orientation? *Contemporary educational psychology*, 26(3), 366-381. <https://doi.org/10.1006/ceps.2000.1069>
- Pajares, F., Johnson, M. J., & Usher, E. L. (2007). Sources of writing self-efficacy beliefs of elementary, middle, and high school students. *Research in the Teaching of English*, 42(1), 104-120.
- Pajares, F., Valiante, G., & Cheong, Y. F. (2006). Writing self-efficacy and its relation to gender, writing motivation and writing competence: a developmental perspective. *Writing and motivation*, 141-162. S. Hidi, & P. Boscolo (Ed.). Elsevier
- Piniel, K., & Csizér, K. (2015). Changes in motivation, anxiety and self-efficacy during the course of an academic writing seminar. *Motivational Dynamics In Language Learning*, 81, 164-194.
- Rahimi, M., & Zhang, L. J. (2019). Writing task complexity, students' motivational beliefs, anxiety and their writing production in English as a second language. *Reading and Writing*, 32(3), 761-786. <https://doi.org/10.1007/s11145-018-9887-9>
- Reeves, L. L. (1997). Minimizing writing apprehension in the learner-centered classroom. *The English Journal*, 86(6), 38-45.
- Ryan, R. M., & Deci, E. L. (2000). Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary educational psychology*, 25(1), 54-67.

- Sanders-Reio, J. (2010). *Investigation of the relations between domain -specific beliefs about writing, writing self-efficacy, writing apprehension, and writing performance in undergraduates* (Order No. 3409651). Unpublished doctoral dissertation. Faculty of the Graduate School of the University of Maryland, Maryland, Collage Park. Retrieved from: <https://search.proquest.com/docview/722953669?accountid=15927>
- Sabti, A. A., Md Rashid, S., Nimehchisalem, V., & Darmi, R. (2019). The Impact of writing anxiety, writing achievement motivation, and writing self-efficacy on writing performance: A correlational study of Iraqi tertiary EFL Learners. *SAGE open*, 9(4), 2158244019894289.
- Selçuk, Z. (2010). *Eğitim psikolojisi. [Education psychology]*. (18<sup>th</sup> Ed.). Nobel.
- Serinkan, C. (2010). Liderlik ve motivasyonda güncel konular. [Current issues in leadership and motivation.]. *Liderlik ve motivasyon: geleneksel ve güncel yaklaşımlar, [Leadership and motivation: traditional and contemporary approaches]*. 149-177. C. Serinkan (Ed.). Nobel.
- Seyis, S. (2011). *Ortaöğretim öğrencilerinin motivasyonları ve duygusal zekâları ile akademik başarıları arasındaki ilişki. [Relationship between high school students' motivation, emotional intelligence and academic achievement]*. Unpublished master's thesis. Karadeniz Technical University. Institute of Education Sciences, Trabzon.
- Soleimani, H., Hamasaid, H. H., & Saheb, B. M. (2020). L2 Writing Anxiety, Writing Self-efficacy and Writing Motivatio: as Correlates of Global L2 Writing Performance. *Koya University Journal of Humanities and Social Sciences*, 3(1), 156-165.
- Da Silva, D., McInerney, D. M., McInerney, V., & Dowson, M. (2006). Comparing EFL motivation and general academic motivation. In *SELF Research Centre biennial international conference proceedings*.
- Stober, J., & Esser, K. B. (2001). Test anxiety and metamemory: General preference for extrinsic over internal information storage. *Personality and Individual Differences*. 30(5). 775-781. <https://doi.org/10.1016/S0191>
- Tsao, J. J., Tseng, W. T., & Wang, C. (2017). The effects of writing anxiety and motivation on EFL college students' self-evaluative judgments of corrective feedback. *Psychological reports*, 120(2), 219-241. <https://doi.org/10.1177/0033294116687123>
- Süğümlü, U., Mutlu, H. H., & Çinpolat, E. (2019). Relationship between writing motivation levels and writing skills among secondary school students. *International Electronic Journal of Elementary Education*, 11(5), 487-492. <https://doi.org/10.26822/iejee.2019553345>
- Tabachnick, G. B., & Fidell, L. S. (2013). *Using multivariate statistics Boston: Pearson*.
- Takımcıgil Özcan, S. (2014). *İlkokul 4. sınıf öğrencilerinin yazma motivasyonları ile hikâye yazma becerilerinin değerlendirilmesi. [Evaluation of writing motivations and story writing skills in elementary fourth grade students]*. Unpublished master's thesis. Sakarya University. Institute of Education Sciences, Sakarya.
- Tobias, S., & Deutsch, T. (1980). Prior achievement. anxiety and instructional method. In *88th Annual Meeting of the American Psychological Association*, 88, 1-23.
- Troia, G. A., Shankland, R. K., & Wolbers, K. A. (2012). *Motivation Research in Writing: Theoretical and Empirical Considerations. Reading & Writing Quarterly*, 28(1), 5–28. doi:10.1080/10573569.2012.632729
- Tunagür, M. (2021). The Effect of Peer Assessment Application on Writing Anxiety and Writing Motivation of 6th Grade Students. *Shanlax International Journal of Education*, 10(1), 96-105. <https://doi.org/10.34293/education.v10i1.4352>
- Wallace, D. L. (1994). Teaching collaborative planning: creating a social context for writing. L. Flower, D. L. Wallance, L. Norris & R. E. Burnett (Ed.). *Making thinking visible: writing, collaborative planning and classroom inquiry*, 48-66. National Council of Teachers of English.
- Wentzel, K. R. (1996). Introduction: New perspectives on motivation at school. J. Juvonen & K. R. Wentzel (Ed.). *Social motivation: Understanding children's school adjustment*, 1-8. Cambridge University Press.

- Wilson, J., & Czik, A. (2016). Automated essay evaluation software in English Language Arts classrooms: Effects on teacher feedback, student motivation, and writing quality. *Computers & Education, 100*, 94-109. <https://doi.org/10.1016/j.compedu.2016.05.004>
- Wiltse, E. M. (2000). The effects of motivation and anxiety on college students' use of instructor comments. Unpublished doctoral thesis. Department of Adult Learning and Technology and The Graduate School of The University of Wyoming, Laramie. Retrieved from <https://search.proquest.com/docview/304641132?accountid=1592>
- Wlodkowski, R.J. (1978). *Motivation and teaching: A practical guide*. National Education Association.
- Zerey, M. Ö., & Müjdeci, Ş. (2023). Interrelations Among Tertiary EFL Students' Foreign Language Writing Motivation, Anxiety, and Achievement. *The Reading Matrix: An International Online Journal, 23*(1).