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Teacher burnout and demographic variables as predictors of teachers' enthusiasm

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This study was aimed to investigate the impact of several demographic variables and teacher burnout on teaching enthusiasm. The descriptive correlational model was used. The study sample was comprised of teachers from high schools (9th-12th grades) in Antalya, Turkey during the fall semester of the 2020-2021 academic year. 366 teachers fully completed the questionnaire in 52 high schools. Data were obtained through two scales, namely the Teacher Enthusiasm Scale, and the Maslach Burnout Inventory. Two models were implemented for teaching and subject enthusiasm, separately. Each model included three demographic variables and three sub-dimensions of teacher burnout as predictors of teachers' teaching and subject enthusiasm. The binary logistic regression analysis was used in the study. The analysis showed that gender and seniority as demographic variables were found to be significant predictors in the teaching enthusiasm model. The average class size was the only variable which was not significantly effective on teaching and subject enthusiasms. Emotional exhaustion and decreasing sense of personal accomplishment were found to be significant predictors for teaching and subject enthusiasm, while emotional exhaustion was the dominant predictor. Also, depersonalization was not a significant predictor of teaching and subject enthusiasm as sub-dimensions of teacher enthusiasm. That the relations', which can directly and indirectly define the relationship between enthusiasm and burnout in the literature being greatly ignored forms the justification of the current study.

Introduction

Teachers undertake a significant role in enabling the continuity and improvement of society due to their responsibility of raising the youngest members of society as required by society and by the era (Erden, 2007). This social role that they undertake requires them to have sufficient professional qualifications, and to be satisfied with their profession in the

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emotional aspect (Celikten, Sanal, & Yeni, 2005). Thus, the feelings of teachers for their profession positively or negatively affect the teaching and learning effectiveness which are the main indicators of the education system in a country (García-Arroyo, Segovia, & Peiró, 2019; Shoshani & Eldor, 2016; Skaalvik & Skaalvik, 2017; Tunc, 2019).

One of the affective factors increasing the teaching and learning effectiveness is teacher enthusiasm (Cui, Yao, & Zhang, 2017; Hooda & Annu, 2018; Hotaman & Sahin, 2010). In a conceptual sense, the concept of enthusiasm that can be used instead of the concepts of dynamism and excitement (Bettencount, Gillett, Gall, & Hull, 1983); productivity, passion, eagerness and success-orientedness (Ozer, 2021) is defined. Teacher enthusiasm, by which teachers transfer their high energy and excitement to the students, and that is revealed by nonverbal expressions (Baloch & Akram, 2018), is deemed to be one of the main characteristics that an effective teacher should have (Kunter, Tsai, Klusmann, Brunner, Krauss, & Baumert, 2008; Lammers & Smith, 2008). It can be said that the factors which focus on the communication and interaction between the teacher and student, and which reveal the quality of teaching service are among the indicators of teacher enthusiasm in the process of teaching and learning (Hotaman & Sahin, 2010). These factors are providing feedback to the student, correcting their possible mistakes, providing suitable reinforcers at the correct time, and organizing the teaching and learning statuses in a manner that will support the participation of students. The teacher's ability to adjust the tone, speed and loudness of her/his voice during the course, to provide fluent and catchy verbal presentations by selecting the correct words, to have a positive and vivid facial expression, to make eye contact with the student, to correctly use gestures, mimics and body movements, and to have energetic and dynamic behaviors are among the indicators of teacher enthusiasm (Kasalak & Dagyar, 2020).

Teachers who are enthusiastic while performing their profession transfer the same enthusiasm to their students (Bacanli, 2002), they care about them, they are willing to share and enjoy such sharing, they endeavor for their students' learning and success, and they deem enthusiastic behaviors to be the must of quality education (Karaman, 2009; Ozer, 2021). Thus, it is emphasized in the literature that being less enthusiastic decreases the effectiveness of teaching (Hadie, Hassan, Talip, & Yusoff, 2019), and directly or indirectly decreases the teaching and learning effectiveness (Cui, Yao, & Zhang, 2017; Hooda & Annu, 2018; Keller, Neumann, & Fischer, 2013). It is specified that the teacher becomes entertaining and joyous in the eyes of the students at the level of her/his enthusiasm and excitement during the teaching and learning process, and to such an extent that s/he forms a course environment in which the students enjoy the course and become willing (Bacanlı, 2002; Day, 2004; Lincoln, 2008; Karaman, 2009; Kunter, Frenzel, Nagy, Baumert, & Pekrun, 2011).

Teacher enthusiasm is addressed in two dimensions, namely teaching enthusiasm and subject enthusiasm (Kunter et al., 2011). Teaching enthusiasm is the excitement that the teacher reveals during teaching. It is defined as teaching with great enthusiasm, the teacher's enjoyment of teaching, and communicating with the students and being in interaction with them. Subject enthusiasm is related with the interest of the teacher in her/his field. It may be defined as the teacher's enjoyment of working in her/his field, her/his excitement for doing research in her/his field, and her/his endeavor for communicating to the students her/his positive opinion regarding her/his field (Kasalak & Dagyar, 2020). Positive emotions of teachers with high teaching and subject enthusiasm while performing their work (Patrick, Turner, Meyer, & Midgley, 2003) may enable them to be alienated from negative emotions regarding their profession.

One of the negative emotions observed in teachers regarding their profession is their sense of burnout while performing their profession. Professional burnout is defined as depression of the teacher due to the problems arising from professional life, her/his stressful state, and her/his sense of exhaustion for her/his profession due to fatigue, hopelessness, tiredness, burnout and depersonalization (Maslach, 2003). According to this definition, in the model of Maslach, burnout is defined by the rise of emotional exhaustion, depersonalization, and decreasing sense of personal accomplishment in individuals. Emotional exhaustion, which expresses the psychological state of individuals who have negative feelings for their profession, is individuals' sense of unhappiness, despair, hopelessness and fatigue due to being unable to deal with the stress and pressure that they feel while fulfilling their tasks and responsibilities at the workplace (Maslach, 2003).

The adoption of insensitive behaviors by the effect of negative feelings for the profession is the depersonalization dimension of professional exhaustion (Cimen, 2000). The depersonalization of individuals causes them to have a negative attitude towards the individuals forming their professional circle. It may be expected for individuals having a sense of depersonalization to exhibit negative behaviors such as withdrawing, becoming lonely, being callous, becoming tough, alienating, and being unable to show empathy (Cimen, 2000; Izgar, 2001). Individuals who face emotional exhaustion and feel depersonalization, start to assess themselves negatively in the work they perform. Individuals who are unable to obtain a return for their efforts may accuse themselves of inadequacy, and as a result, they may feel unsuccessful. Moreover, the sense of low success causes individuals to lose their motivation for working (Saglam & Cina, 2008). As the teaching profession requires self-sacrifice and effective communication, and as it emotionally effects the individual, it can be said that it is a high probability for teachers to feel exhaustion (Seferoglu, Yildiz, & Avci Yucel, 2014). One of the consequences of exhaustion in the education system is a decrease in the teaching and learning effectiveness. A teacher facing exhaustion becomes insensible in her/his responsibilities for her/his students and profession (Polat, Ercengiz, & Tetik, 2012). Due to the teacher's negative emotions for her/his profession, her/his performance level decreases, and problems are observed in her/his social relations with all the members of the school (Capri, 2006). Moreover, exhausted individuals' psychological health and physical energy decreases, and this causes them to be unproductive while performing their work (Ertugrul, 2018). Accordingly, it is expected for teachers facing high levels of exhaustion to define themselves as less enthusiastic (Kunter et al., 2011).

One other factor, which may affect teacher enthusiasm, is the learning environment where the teacher works. Thus, success in the profession of teaching requires the teaching effectiveness and the interaction of the learning environment (Kiral & Diri, 2016). Moreover, the teacher is responsible for the formation of the learning environment, and the emotional state of teachers is reflected positively or negatively on the learning environment (Bedir & Yildirim, 2000). In the teaching and learning process, where a progressive education philosophy is the case, it is required to adjust the learning environment and the teaching and learning process according to the students, who are required to be focused on centered considering individual differences (Dewey, 1997). In this process, excessively crowded classrooms form a source of professional exhaustion by causing a sense of fatigue and failure in the teacher, and a decrease in her/his energy and desire (Demir & Kara, 2014; Kayabasi, 2008). Besides the average class size, it can be said that teachers' gender, and their seniority in the profession also affect their enthusiasm and burnout levels (Budak & Surgevil, 2005; Ozer, 2021; Seferoglu et al., 2014).

For the variable of seniority, there are studies stating that as teachers gain experience in the

profession, they feel more successful and are more emotionally satisfied with their profession, and that their feelings of burnout decrease (Otacioglu, 2008; Seferoglu et al., 2014). In addition, there are studies indicating that as the seniority increases, the boredom towards the profession increases and the resulting fatigue increases professional burnout (Durak & Seferoglu, 2017). In studies investigating teacher enthusiasm, it is emphasized that teachers with more seniority have lower levels of enthusiasm than their younger colleagues who are more idealistic (Kunter et al., 2011). As a matter of fact, it is stated in the literature that teachers are more idealistic when they first start their profession and that idealistic teachers are more excited about teaching and their profession (Unsal, 2018). In studies comparing the burnout and enthusiasm levels of female and male teachers, there are studies stating that teachers' burnout and enthusiasm levels differ in terms of gender (Karaman, 2009; Seferoglu et al., 2014).

According to the literature, while the teaching and subject enthusiasm of teachers positively affect teachers, students, school culture and the teaching and learning processes (Hooda & Annu, 2018; Keller et al., 2013), teacher burnout affects these negatively (Capri, 2016; Saglam & Bal, 2018). In the current literature, it is stated that the concepts of job satisfaction (Kanbur, 2020; Buric & Moe, 2020; Weiqi, 2007) and teacher motivation (Fidan, 2014; Frenzel, Taxer, Schwab, & Kuhbandner, 2019), which show a positive relationship with teacher enthusiasm, are negatively related to teacher burnout (Anderson & Iwanicki, 1984; Fernet, Chanal, & Guay, 2017; Kandur, 2020; Skaalvik & Skaalvik, 2017; Yildirim, 2019). The fact that such negative relations, which can indirectly define the relationship between enthusiasm and burnout, and which are examined as direct relationships in the literature (Kunter et al., 2011), have been greatly ignored forms the justification of the current study. Based on the literature review, teachers' professional burnout levels, gender and seniority, and the average class size were determined as variables which may clarify the level of teacher enthusiasm. In this direction, the aim of the current study is to determine the level of prediction of teachers' teaching and subject enthusiasm by teachers' burnout levels (according to this definition, in the model of Maslach, burnout is defined by increasing emotional exhaustion and depersonalization, and decreasing sense of personal accomplishment), and by the determined demographic variables (gender, seniority, and average class size). Within this context, the following questions are sought for answers:

(1) What is the level of prediction of teachers' teaching enthusiasm by teachers' burnout levels, and by the determined demographic variables?
(2) What is the level of prediction of teachers' subject enthusiasm by teachers' burnout levels, and by the determined demographic variables?

Method

Research Model

In this study, the descriptive correlational model was used to examine the relationship between teachers' teaching and subject enthusiasm by teachers' burnout levels and demographic variables in Turkey. The descriptive correlational model is one of the quantitative research method designs, which aims to determine the degree of change between two or more variables (Karasar, 2020).

Population and Sample

Several steps were taken to identify a suitable sample for the study. In the first step, the province where the high schools will be selected for the study sample was determined. A province located in the southern region of Turkey (the central districts of Antalya viz. Aksu, Dosemealti, Konyaalti, Kepez, Muratpasa) was selected. The convenience sampling strategy was used for selecting the province, in order to identify a sample that would be easily accessible (Fraenkel, Wallen, & Hyun, 2012). Eventually the accessible population of the research was determined as 224 public high schools (8486 teachers) in in the central districts of Antalya in the 2020-2021 academic year.

Then, using cluster sampling (Balci, 20062), 77 public high schools in each district were randomly selected from a pool of all high schools listed on the website of each provincial branch of the Ministry of National Education. Data collection tools were distributed to 3166 teachers from selected high schools who volunteered to participate in the research. With cluster sampling, schools can be selected by simple or stratified sampling method, or all the high schools can be included in the sample. If it is not economical to work on all the high school teachers in the schools included in the sample, then the sample is selected from among the teachers in the selected schools.

Considering the ideal sample size to represent the target population of this research, 5% confidence interval and 5% margin of error, the minimum sample size representing the population of 3166 units was found to be 357 (Bas, 2013). However, considering the problems that may be encountered while filling out the questionnaire, a data collection tool was applied to 467 participants. 366 participating teachers returned the data collection tools as fully completed. At the end of this process, 366 teachers fully completed the questionnaire in 52 high schools in Antalya who voluntarily participated from the public state high school. The demographic features of the sample group are shown in Table 1.

Table 1. Demographic features of the sample

		Male	Female	
Gender	n	148	218	
	%	40.4	59.6	
		Less than 15 years	More than 15 years	
Seniority	n	130	236	
	%	35.5	64.5	
		Less than 25 students	26-35 students	More than 36 students
Average class size	n	113	175	78
	%	30.9	47.8	21.3

A total of 218 teachers (59.6%) were female, and 148 of them (40.4%) were male. The seniority as teachers varied ranging from 35.5% (less than 15 years) to 64.5% (more than 15 years). Since the average service period of teachers working in the province of Antalya is 15 years or more (ERG, 2019), the category of years of service is classified as dual. The average class size of public schools in Turkey is 35, which is well above the OECD average of 23 and has the highest ratio among OECD countries (OECD, 2017). Therefore, in this study, in parallel with these data, the average class size variable was classified as less than 25 students, 26-35 students, and more than 36 students. Thus, the average class size of 113 teachers is less than 25 students, 175 teachers have between 26-35 students and 78 have more than 36 students.

Data collection instruments

Data were obtained data through two scales, namely (i) the Teacher Enthusiasm Scale, and (ii) the Maslach Burnout Inventory: The Teacher Enthusiasm Scale (TES) (Kunter et al., 2011), which aims to assess measures the extent to which teachers perceive a sense of enthusiasm about teaching and their subjects; and Maslach Burnout Inventory (MBI) (Maslach et. al., 1986), which aims to determine the Teacher burnout of high school teachers.

Teacher Enthusiasm Scale (TES)

The first of the two scales used for this research, the Teacher Enthusiasm Scale (TES), was developed by Kunter et al. (2011) in English and adapted into Turkish by Kasalak and Dagyar (2020). The scale, whose original version and adapted version is referred as "Teacher Enthusiasm Scale", measures the extent to which teachers perceive a sense of enthusiasm about teaching and their subjects (teachers' teaching enthusiasm and subject enthusiasm). The scale is presented as a 5-point Likert type (ranging from 1= I definitely don't agree to 5= I definitely agree), to measure the response frequency for the items.

The TES (original version and adapted version) consists of 2-factor structure with 10 items, with 5 items for teaching enthusiasm sub-scale (sample item: I always enjoy teaching students' new things) and 5 items for subject enthusiasm sub-scale (sample items: I engage in my subject because I enjoy it.' and 'I enjoy interacting with students'). The original version of the TES was developed by applying it to teachers working in all school types. The rate of teachers working at the high school level (Gymnasium) is stated as 31.6 (Kunter et al., 2011). The adaptation study was carried out by applying the adapted version of the TES to teachers working in school types. The rate of teachers working at high school level in the sample of the study was expressed as 29.9% (Kasalak & Dagyar, 2020). In adapted version of the TES, the total variance was calculated as 69.668. Moreover, the factor loads of items in the dimension of teaching enthusiasm, consisting of 5 items, were varying in between .620 and .807, and that the rate of variance it had expounded was 37.526%. The subject enthusiasm dimension, consisting of five items, had expounded 32.142% of the total variance, and factor loads of the items were varying in between .708 and .867.

In the confirmatory factor analyses (CFA), the goodness-of-fit indexes were $\chi 2$=209.16, sd=34, ($\chi 2$/sd) = 6.15, $p < .001$; RMSEA = .099, AGFI = .88, GFI = .93, CFI = .95, NFI = .94, SRMR= .047, and RMR = .015 (Kasalak & Dagyar, 2020). In this study, the CFA was calculated to verify a two-factor structure conforming to the data. The goodness-of-fit indexes were verified to be $\chi 2$= 421.71, sd = 164, $\chi 2$/sd = 2.57, $p < .001$, RMSEA = .051, GFI = .94, AGFI = .92, NFI = .90, NNFI= .98, and CFI = .93. The fact that CFI, NFI, GFI, AGFI, value ranges from 0.90 to 0.95, RMSEA value was between 0.05 and 0.08, and the $\chi 2$ / df value was also between 2 and 3 are an indicator of acceptable compliance. It can be said that it has a perfect fit because the NNFI value is higher than 0.95 (Kline, 2011; Joreskog & Sorbom, 1993). According to these values, the model was found to have good fit.

Kasalak and Dagyar (2020) determined the internal consistency coefficient of the scale for the dimensions of teaching enthusiasm to be .860 and for subject enthusiasm to be .906. The current study also found Cronbach alpha coefficients for the dimensions of teaching enthusiasm and subject enthusiasm to be .873 and .920, respectively.

Maslach Burnout Inventory (MBI)

Teacher burnout was measured using the Maslach Burnout Inventory (MBI) (Maslach, Jackson, Leiter, Schaufeli, & Schwab, 1986). A reliability and validity study of the Turkish version of the MBI was carried out by Ergin (1992). The final version of the scale was used as revised by Alanoglu (2019) and confirmed the 3-factor structure with 22 items of the original instrument, with 9 items for emotional exhaustion, 8 items for decreasing sense of personal accomplishment, and 5 items for depersonalization. In this study, Alanoglu's (2019) adaptation was preferred because the scale was adapted in a group whose study group was teachers. The sample group in the adapted version of the MBI consists of teachers working at high school level in a southern province of Turkey (Mersin) (Alanoglu, 2019). Each item is rated using a 5-point rating scale from 1 (Never) to 5 (Always).

In adapted version of the MBI, the total variance was calculated as 61.34. The factor loads of items in the dimension of emotional exhaustion were varied in between .36 and .80, and that the rate of variance it had expounded was 24.31%. The decreasing sense of personal accomplishment dimension had expounded 20.79% of the total variance, and factor loads of the items were varying in between .50 and .80, The depersonalization dimension had expounded 16.24 % of the total variance, and factor loads of the items were varying in between .39 and .76. Moreover, the goodness-of-fit indexes of the measurement model obtained from the CFA were $\chi^2/df = 4.12$, RMSEA = .08, SRMR = .05, NFI = .94, NNFI = .95, CFI = .95 and IFI = .95 (Alanoglu, 2019). In this study, the CFA was calculated to verify a three-factor structure conforming to the data. The goodness-of-fit indexes were verified to be $\chi2 = 322.04$, sd = 85, $\chi2/sd = 3.78$, $p < .001$; RMSEA = .068, GFI = .93, AGFI = .91, NFI = .95, and CFI = .99. According to the obtained values, the model was found to have good fit (Kline, 2011).

Alanoglu (2019) determined the internal consistency coefficient of the scale for the dimensions for emotional exhaustion to be .90, for decreasing sense of personal accomplishment to be .88, and for depersonalization to be .85. In the current study, the Cronbach alpha coefficients ranged from .895, .880, and .753, respectively.

Data analysis

In the study, the binary logistic regression analysis was carried out. For the internal reliability, Cronbach alpha coefficients of the sub-scales, were calculated. The data were analyzed by using SPSS 20.0. Moreover, the confirmatory factor analyses (CFA) of the scales used were carried out by using the LISREL 9.2 statistics programme.

The use of binary logistic regression analysis was preferred in the study. The main reason for using binary logistic regression analysis is the flexibility it provides in meeting the regression assumptions in multivariate analysis. The logistic regression model is a sound analysis method in terms of simultaneously investigating numerous continuous and categorical variables that have the potential to affect the dependent variable within an integrated model (Tabachnick & Fidell, 2013). In order to check the binary logistic regression analysis assumptions, first the extreme value in the data set were calculated. Accordingly, the data outside the -3, +3 range calculated on the z-scores were excluded from the analysis (Senel & Alatli, 2014) and the model was tested on 366 data. Then, the skewness and kurtosis coefficients and Q-Q plots were used to prove the normal distribution. The skewness coefficients were -1.155 in the teaching enthusiasm dimension and -1.026 in the subject enthusiasm dimension; 1.581 in the depersonalization dimension, .632 in the emotional

exhaustion dimension and .793 in the decreasing sense of personal accomplishment dimension. Kurtosis coefficients were calculated as -1.544, .752, 1.964, -.324 and 1.456, respectively for each sub dimension or the scale/or variable. It can be said that the absolute skewness value was above ± 2.0 and the kurtosis-sharpness value was above 7.0 in the n > 300 sample, that the data of this research show a normal distribution, and that the points were close to the 45-degree reference line on the Q-Q plots (Kim, 2013). For the autocorrelation, the Durbin-Watson (DW) value was found to be (DW teaching enthusiasm=1.88; DW subject enthusiasm =1.56). It was considered whether or not the tolerance value between .969 and .710 was greater than 0.2. Variance inflation Factor (VIF) values ranging from 1.032 to 1.409 should be less than 10 and Condition Index (CI) values ranging from 16.042 to 1.000 should be less than 30 (Buyukozturk, 2020). Pearson correlations were calculated to examine whether there were any potential multicollinearity issues (Table 2). There was no high correlation among independent variables. This situation is not considered as a sign of these multiple collinearities for binary logistic regression (Buyukozturk, 2020).

Table 2. Correlations among variables used in the analyses.

		1	2	3	4	5	6	7	8	9	10
1	Gender	1									
2	Seniority	.216**	1								
3	Average class size	-.115	.068	1							
4	EMEXH	.118*	.095	.051	1						
5	DSPA	-.004	.012	-.040	.361**	1					
6	DEP	.093	-.025	.007	.476**	.319**	1				
7	TEACE	-.136**	.051	.046	-.371**	-.420**	-.238**	1			
8	SUBE	-.064	.015	.026	-.402**	-.396**	-.245**	.551**	1		
9	TB	.090	.068	.014	.867**	.737**	.662**	-.464**	-.473**	1	
10	TE	-.063	-.040	-.061	-.512**	-.489**	-.321**	.643**	.739**	-.598**	1

Note: EMEXH: Emotional exhaustion; DSPA: Decreasing sense of personal accomplishment; DEP: Depersonalization; TEACE: Teaching enthusiasm; SUBE: Subject enthusiasm; TB: Teacher Burnout; TE: Teacher Enthusiasm

When the correlation coefficients are examined; It has been observed that there is a significant negative relationship [r = -.238 with r= -.420] between teacher enthusiasm dimensions and teacher burnout dimensions. There were significant, negative, and moderate correlations between teaching enthusiasm and emotional exhaustion (r = -.371) and decreasing sense of personal accomplishment (r = -.42); There is a significant, negative, and low-level relationship between teaching enthusiasm and depersonalization (r= -.238). There were significant, negative, and moderate correlations between subject enthusiasm and emotional exhaustion (r = -.402) and decreasing sense of personal accomplishment (r = -.396); there is a significant, negative, and low-level relationship between teaching enthusiasm and depersonalization (r= -.24). However, as a part of binary logistic regression analysis results, it was seen that seniority, one of the independent variables, was significantly related to teaching enthusiasm [r = -.216].

Three demographic variables (gender, seniority, and average class size) and three teacher burnout variables (emotional exhaustion, decreasing sense of personal accomplishment, depersonalization) were added and then the binary logistic regression analysis (Backward Method with Likelihood Ratio from the stepwise methods) model was run to determine the membership of the outcome to one of the two categories) (Tabachnick & Fidell, 2013) (low and high teaching enthusiasm and subject enthusiasm). The demographic variables (categorical) and teacher burnout variables (continuous) were taken as independent variables

in this study. Before implementing the tests, the demographic variables were recoded because binary logistic regression requires defining one of the categories as a reference category. The first category was selected as the reference group for all categorical variables, and therefore, they were recoded with "0" and the others with "1". For instance, it has been recoded gender as 0: female and 1: male. In regression analyses, classified variables can be included in the analysis by excluding one of the levels and transforming the rest into dummy variables (Buyukozturk, 2020). In addition, in the study, it was considered that there were at least 50 personality categories in each independent variable (Cokluk, 2010).

In this study, the teaching enthusiasm and the subject enthusiasm variables were determined as the dependent variables. These two variables were transformed into categories with cluster analysis (see Table 3).

Table 3. Cluster descriptors: differences in mean values for teacher enthusiasm (N=366)

Enthusiasm	Level	M	f	%	t
Teaching	Low	4.33	210	57.4	20.707***
	High	5.00	156	42.6	
Subject	Low	4.03	216	59	26.349***
	High	5.00	150	41	

*p<.05 **p<.01 ***p<.001

As seen in Table 3, there are statistically significant differences between high and low levels. This means the teaching and subject enthusiasm variables have discriminative features.

Findings

The effect of demographic variables and teacher burnout on teaching enthusiasm

Two sub-analyses were implemented for teaching enthusiasm and subject enthusiasm, separately. Each sub-analysis included three discrete predictors about the demographic variables and three sub-scales of teacher burnout. The results of the analysis conducted to determine whether the demographic variables and burnout levels of the teachers make a significant contribution to explaining their enthusiasm for teaching are given in Table 4.

Table 4. Logistic regressions predicting teaching enthusiasm.

Independent variables (code)	B	Wald's χ^2	P	Exp (B)	95% C.I. for EXP(B) Lower	Upper
Gender						
Female (0) (RG)						
Male (1)	-.677	6.492**	.011	.508	.302	.855
Seniority as teachers						
Less than 15 years (0) (RG)						
More than 15 years (1)	.598	5.043**	.025	1.818	1.079	3.063
Average class size						
Less than 25 students (0) (RG)		.497	.780			
26-35 students (1)	-.028	,009	.924	.973	.554	1.709
More than 36 students (2)	,194	.309	.579	1.214	.613	2.403
Emotional exhaustion	-.935	16.977**	.000	.393	.252	.613
Decreasing sense of	-1.630	33.888**	.000	.196	,113	.339

personal accomplishment						
Depersonalization	-.080	.067	.796	.923	.502	1.695
Constant	4.509	46.238	.000	90.825		
Hosmer and Lemeshow Test (Chi-square)	df=8	18.228	.020			
-2LL		389.610				
Cox & Snell R Square		.259				
Nagelkerke R Square		.348				
Classification Percentage		73.8%				

*p<.05 **p<.01 RG: Reference Group

As illustrated in Table 4, the Hosmer-Lemeshow value is 18.228, while the overall accuracy rate is 73.8%. The ratio was found to be 66.7 % for the group with high teaching enthusiasm, and 79% for the group with low teaching enthusiasm. β values give information about the relationship between predictor and predicted variables, and e^{β} (odds) values provide information about relationships between sub-categories of the predicted variable (Tabachnick & Fidell, 2013). Table 4 states that the log of the odds of *teaching enthusiasm* is positively correlated with seniority as teachers ($p < .05$), while it is negatively correlated with gender ($p < .05$), emotional exhaustion and decreasing sense of personal accomplishment ($p < .01$). The other two independent variables - Average class size and depersonalization - are not correlated with the log of the odds of teaching enthusiasm at the alpha level .05. *Gender* affects teaching enthusiasm. The odd of male teachers' teaching enthusiasm is $e^{-.677} = .508$ times lower than that of female teachers. This means that the probability of teaching enthusiasm is 1/.508 = 1.96 times lower for male teachers than female teachers. The probability of a male teacher having high teaching enthusiasm is 83.5%, and the probability of its being low is 16.5%. *Seniority as teachers* also has an impact on teaching enthusiasm. Seniority as teachers is the other significant independent variable. The odd of participants working as teachers for more than 15 years is $e^{.598} = 1.818$ times higher than teachers working for less than 15 years. This means that the probability of teaching enthusiasm is 1/1.818 = .84 times higher for a participant working for less than 15 years than that of one working for more than 15 years in school as a teacher. The probability of a teacher's high enthusiasm with a service year of 15 years or more is 64.5%; the probability of their low enthusiasm is 35.5%.

The findings show that *teaching enthusiasm* is negatively and significantly correlated with emotional exhaustion and decreasing sense of personal accomplishment. However, the effect of depersonalization on teaching enthusiasm is not significant ($p > .05$). In other words, it can be said that while emotional exhaustion and decreasing sense of personal accomplishment are variables that affect teachers' teaching enthusiasm, the effect of the depersonalization variable is not important. The odd obtained from emotional exhaustion is $e^{-.935} = .393$ and from decreasing sense of personal accomplishment $e^{-1.630} = .196$. This means that the probability of teaching enthusiasm is 1/.393 = 2.54 times higher for a participant feeling emotional exhaustion less than that of one feeling emotional exhaustion more. This also means that the probability of teaching enthusiasm is 1/.196 = 5.01 times higher for a participant feeling a decreasing sense of personal accomplishment less than that of one feeling a decreasing sense of personal accomplishment more. It can be stated that teachers having a lower level of emotional exhaustion and increasing sense of personal accomplishment are more likely to show teaching enthusiasm. Teachers with a high level of emotional exhaustion have a 28.2% probability of high teaching enthusiasm; the probability of this being low is 71.8%. Teachers

with a high level of decreasing sense of personal accomplishment have a 16.3% probability of high teaching enthusiasm, while the probability of this being low is 83.7%. Together, all predictive variables in this model explain 25.9% of the total variance in teaching enthusiasm according to the Cox & Snell R^2 value and 34.8% according to the Nagelkerke R^2 value.

The effect of demographic variables and teacher burnout on subject enthusiasm

The results of the analysis conducted to determine whether the demographic variables and burnout levels of the teachers make a significant contribution to explaining their enthusiasm for subject are given in Table 5.

Table 5. Logistic regressions predicting subject enthusiasm.

Independent variables (code)	B	Wald's χ^2	P	Exp (B)	95% C.I.for EXP(B) Lower	Upper
Gender						
Female (0) (RG)						
Male (1)	-.191	.529	.467	.826	.494	1.382
Seniority as teachers						
Less than 15 years (0) (RG)						
More than 15 years (1)	.332	1.604	.205	1.394	.834	2.332
Average class size						
Less than 25 students (0) (RG)		1.519	.468			
26-35 students (1)	-.181	.400	.527	.834	.475	1.463
More than 36 students (2)	.207	.359	.549	1.230	.624	2.425
Emotional exhaustion	-1,142**	23.762	.000	.319	.202	.505
Decreasing sense of personal accomplishment	-1.383**	26.320	.000	.251	.148	.425
Depersonalization	-.148	.216	.642	.862	.462	1.610
Constant	4.464	45.126	.000	86.827		
Hosmer and Lemeshow Test (Chi-square)	df=8	8.399	.395			
-2LL		392.060				
Cox & Snell R Square		.246				
Nagelkerke R Square		.332				
Classification Percentage		72.4%				

*p<.05 **p<.01 RG: Reference Group

As illustrated in Table 5, the Hosmer-Lemeshow value is 8.399, while the overall accuracy rate is 72.8%. The ratio was found to be 62.7% for the group with high subject enthusiasm, and 79.2% for the group with low subject enthusiasm. The findings show that *subject enthusiasm* is negatively and significant correlated with emotional exhaustion and decreasing sense of personal accomplishment. However, the effect of depersonalization on subject enthusiasm is not significant ($p > .05$). It can be said that while emotional exhaustion and decreasing sense of personal accomplishment are variables that affect teachers' subject enthusiasm; the effect of the depersonalization variable is not important. The odd obtained from emotional exhaustion is $e^{-1.142} = .319$ and from decreasing sense of personal accomplishment, $e^{-1.383} = .251$. This means that the probability of *subject* enthusiasm is 1/.319 = 3.13 times higher for a participant feeling emotional exhaustion less than that of one feeling emotional exhaustion more. This also means that the probability of *subject* enthusiasm is 1/.251 = 3.98 times higher for a participant feeling a decreasing sense of personal accomplishment less than that of one feeling a decreasing sense of personal accomplishment more. It can be stated that teachers having a lower level of emotional exhaustion and

increasing sense of personal accomplishment are more likely to show subject enthusiasm. Teachers with a high level of emotional exhaustion have a 24.2% probability of high subject enthusiasm; the probability of this being low is 75.8%. Teachers with a high level of decreasing sense of personal accomplishment have a 20% probability of high subject enthusiasm, while the probability of this being low is 80%. Together, all predictive variables in this model explain 24.6% of the total variance in teaching enthusiasm according to the Cox & Snell R^2value and 33.2% according to the Nagelkerke R^2 value.

Discussion and conclusion

The main goal of this study was to analyze the ability of several demographic variables (gender, seniority, and average class size) and teacher burnout sub-dimensions (emotional exhaustion, decreasing sense of personal accomplishment, depersonalization) to predict the level of teachers' teaching and subject enthusiasm. In order to analyze the teachers' teaching and subject enthusiasm and effect of the predictors on the results properly, two distinct models were developed.

In the first model (i.e., teaching enthusiasm), a predictor effect was determined between gender, seniority as teachers, emotional exhaustion and decreasing sense of personal accomplishment as the independent variables and teaching enthusiasm as a dependent variable. In light of the results, it can be said that those who have a low level of emotional exhaustion and increasing sense of personal accomplishment have a high level of teaching enthusiasm. Similarly, Kunter et al. (2011) reported that teachers' teaching enthusiasm and burnout levels towards their professions are related. They emphasized that teachers who have a great level of burnout will define themselves as having a low level of teaching enthusiasm. Teachers who experience emotional exhaustion feel distressed, exhausted, and unsuccessful (Maslach, 2003). Therefore, emotional exhaustions of the teachers are affected their teaching enthusiasm, which is defined as having pleasure, enhancement, and excitement due to teaching activities (Kunter et al., 2008). Additionally, Kunter et al. (2011) also pointed out that teaching enthusiasm is affected by learning environmental characteristics such as the average class size, the gender population, and their motivation levels. Nonetheless, in this study, the average class size was found to be an insignificant predictor of teaching enthusiasm. This can be explained by the fact that the sample survey subjects were high school teachers. In the Turkish education system, there is a conflict between the structure of the constructivist approach based on a progressive educational philosophy desired to be implemented in the secondary education programs and the structure of central exam system required for college entrance (Tas & Aykac, 2020). The central examination, unlike the constructivist approach (Dewey, 1997), requires a system based on memorizing teacher-centered information, leaving the student passive, and receiving the information (Akpinar, 2017). In this system, too, since the teacher offers the lecture-based lesson, the number of students in the class may not make any difference for the teacher (Cetin & Unsal, 2019). For this reason, it can be thought that in education systems where the student is not centered, the average class size that teachers teach will not affect their enthusiasm for teaching.

When teacher qualifications, which can be another important parameter that can affect teaching enthusiasm, are examined meticulously, female teachers were found to possess higher levels of motivation than male teachers, and a similar finding has been also reported by Ozer (2021). Furthermore, in the first model, the seniority in the profession was determined to be a significant predictor. The results revealed that teachers who have been working for over 15 years are likely to possess higher levels of teaching enthusiasm than the ones who have

less experience in the area. In the literature, extensive studies on teacher characteristics have revealed that teaching enthusiasm can categorized not only as a congenital characteristic, but also as an aspect that may be advanced during a period (Liston & Garrison, 2004). In this manner, females show more empathy and have higher emotional intelligence than their male colleagues (Uncu, 2007) and, as teachers acquire a promotion by gaining experience and enhancing their teaching skills, the effects of the variables of gender and seniority in the area can explain teaching enthusiasm (Karaman, 2009). On the other hand, Kunter et al. (2011) reported that teaching enthusiasm is unaffected by the gender of teachers, while there is a negative correlation between the age of teachers and their seniority in their area and their teaching enthusiasm. Fidan (2014) also reported that no direct effect was found between teaching enthusiasm and the gender of teachers who taught English.

In the second model (field enthusiasm), the variables of emotional exhaustion and decreasing sense of personal accomplishment were found to predict the dependent variable of subject enthusiasm. According to the results obtained in this study, teachers with low levels of emotional exhaustion and increasing sense of personal accomplishment are presumed to experience higher levels of subject enthusiasm. Subject enthusiasm which reveals the interest of teachers towards their professions, requires teachers to be excited to work in relation to their professions, eager to work and do research as well as being vigorous and enthusiastic (Kasalak & Dagyar, 2020). Nonetheless, one can say that teachers who experience emotional exhaustion, disinterest, and unwillingness in doing research or in endeavoring in their area, will be unenthusiastic towards their professions. In this study, the depersonalization level of teachers' exhaustion was found to have an insignificant effect on teaching and subject enthusiasms. Professional exhaustion and decreasing sense of personal accomplishment not only reveal teachers' state of mind but also have a direct effect on teachers' emotions. Depersonalization is a reflection of the emotional negativity that burnout creates in the teacher towards the teacher's own environment (Izgar, 2001). Even though teachers think they are emotionally exhausted and/or unsuccessful, they can deny the fact that they depersonalize themselves or the adverse effect of their state of mind on the people who are close to them. A teacher may be in denial of his/her negative attitudes such as facetiousness, rudeness, lack of empathy and apathy as results of depersonalization.

In the second model, the average class size was not found to be a significant predictor of subject enthusiasm. Kunter et al. (2011) also reported that there is no relation between subject enthusiasm and the average class size, which reflects the learning environment. The finding obtained in the study regarding the fact that gender and seniority reflecting teacher characteristics do not have an explanatory effect on teacher enthusiasm is in line with the finding of Ozer (2021) that the field enthusiasm of teacher candidates does not differ in terms of gender. Kunter et al. (2011) also reported that they found that teachers' gender, age, and seniority are not related to subject enthusiasm. It can be said that the teachers turned to the discipline field that they felt close to during their high school years, they determined their field preferences at university, and they studied to specialize in the field they chose for many years. Accordingly, it can be said that the enthusiasm for the field, which reflects the love, interest, and excitement that teachers feel for their fields, will not change according to the teacher's personal characteristics.

The results from this study are limited to the accessible population of Antalya in Turkey. In this manner, the results cannot be generalized to the teachers who actively teach in Turkey, so that a further investigation on teacher enthusiasm and teacher exhaustion variables should be performed. The effects of learning environment characteristics effects on teaching enthusiasm

should be investigated by employing more variables. It can be suggested to conduct a qualitative study based on observation and teacher-student views examining the enthusiasm for teaching, considering the seniority of female and male teachers in the profession. In addition to teacher enthusiasm, it is recommended to investigate teacher enthusiasm felt by students.

Since the dimension of depersonalization is explained as the images that teachers reflect on their professional environment, it can be recommended to conduct research that allows teachers to evaluate teachers with their colleagues and students, as well as self-evaluation in terms of depersonalization.

According to the findings of the study, because emotional exhaustion and decreased sense of personal accomplishment negatively affect teachers' enthusiasm for teaching and lessons, the education authorities (such as school administrations, education district administrations, school board) should create an environment to prevent the adverse effects of emotional exhaustion and decreasing sense of personal accomplishment on teaching and subject enthusiasms, while acknowledging teachers' accomplishments and encouraging them to be more successful in their area. Because emotional exhaustion is the dominant predictor, it is suggested that providing teachers with information about affective factors that affect the quality of education, such as teacher enthusiasm and teacher burnout, may be useful for teachers to recognize and compare themselves, their feelings, and behaviors.

In addition, in order to increase teachers' teaching and subject enthusiasm, it can be expected to develop healthy school environments that will reduce teachers' emotional exhaustion levels and increase their sense of personal achievement. In-service and on-the-job trainings should be organized by the Ministry of National Education in Turkey, various projects should be developed, and postgraduate education opportunities for teachers should be supported to ensure that they continue their personal and professional development throughout the teaching process. In order to increase the teaching enthusiasm of teachers with low professional seniority, activities can be organized in schools to improve professional cooperation between groups and to encourage teamwork.

References

Akpinar, B. (2017). Türk eğitim sisteminin merkezi sınav sorunu [Central exam problem of Turkish education system]. *Eğitime Bakış: Eğitim-Öğretim ve Bilim Araştırma Dergisi [Journal of Education and Science Research]*, 13(40), 32–40.

Alanoglu, M. (2019). *Analysis of the relationships between perceived school principal management styles and teachers' participation in decision making, organizational justice, job satisfaction and burnout perception.* (Unpublished doctoral thesis). Firat University, Elazig, Turkey.

Anderson, M. B. G., & Iwanicki, E. F. (1984). Teacher motivation and its relationship to burnout. *Educational Administration Quarterly*, 20(2), 109-132.

Bacanli, H. (2002). *Gelişim ve öğrenme [Development and learning]*. Ankara: Nobel.

Balci, A. (2001). Sosyal bilimlerde araştırma. *Yöntem, Teknik ve İlkeler [Research in the social sciences. Methods, techniques, and principles]*, Ankara: Pegem.

Baloch, K., & Akram, M. W. (2018). Effect of teacher role, teacher enthusiasm and entrepreneur motivation on startup, mediating role technology. *Arabian Journal of Business and Management Review (Oman Chapter)*, 7(4), 1-14.

Bas, T. (2013). *Anket [Survey]*, Ankara: Seckin.

Bedir, H., & Yildirim, O. G. R. (2000). Teachers' enthusiasm in ELT classes: Views of both students and teachers. *Journal of Cukurova University Institute of Social Sciences*, 6(6), 119-130.

Bettencount, E. M., Gillett, M. H., Gall, M. D. & Hull, R. E. (1983). Effect of teacher enthusiasm training on student on-task behavior and achievement. *American Educational Research Journal*, 20(3), 435-450.

Buric, I., & Moe, A. (2020). What makes teachers enthusiastic: The interplay of positive affect, self-efficacy and job satisfaction. *Teaching and Teacher Education*, 89, 103008.

Buyukozturk, S. (2020). *Handbook for Social Sciences. Statistics, research design, SPSS applications and interpretation*. Ankara: Pegem.

Capri, B. (2006). Turkish adaptation of burnout scale: Validity and reliability study. *Mersin University Journal of the Faculty of Education*, 2(1), 62- 77.

Celikten, M., Sanal, M. & Yeni, Y. (2005). Öğretmenlik mesleği ve özellikleri [Teaching profession and its characteristics]. *Erciyes University Journal of Social Sciences Institute*, 1(19), 207-237.

Cetin, A., & Unsal, S. (2018). Social, psychological effects of central examinations on teachers and their reflections on teachers' curriculum implementations. *Hacettepe University Journal of Education*, 34(2), 304-323.

Cokluk, O. (2010). Logistic regression: Concept and application. *Educational Sciences: Theory and Practice*, 10(3), 1357-1407.

Cui, G., Yao, M., & Zhang, X. (2017). The dampening effects of perceived teacher enthusiasm on class-related boredom: The mediating role of perceived autonomy support and task value. *Frontiers in Psychology*, 8, 400, 1-11.

Day, C. (2004). *A passion for teaching*. London: Routledge Falmer.

Demir, M. K. & Kara, N. (2014). The burnout of primary school teachers who teach to the first classes. *Journal of Theory and Practice in Education*, 10(2), 424-440.

Dewey, J. (1997). *Experience and education*. New York: Touchstone.

Durak, H. Y., & Seferoglu, S. S. (2017). Examination of teachers' sense of burnout in terms of various variables. *GUJGEF*, 37(2), 759-788.

Erden, M. (2007). *Eğitim bilimlerine giriş [Introduction to educational sciences]*. Ankara: Arkadaş.

ERG (Education Reform Initiative) (2019). *Teacher planning and teacher professional empowerment in Turkey: Policy recommendations*. Retrieved from https://www.egitimreformugirisimi.org/turkiyede-ogretmen-planlamasi-ve-ogretmenin-mesleki-guclenmesi-politika-onerileri/

Ergin, C. (1992). Burnout in doctors and nurses and adaptation of the Maslach Burnout Inventory. In R. Bayraktar & İ. Dağ, (Eds.). *The scientific studies of the 7th National Psychology Congress*, (pp. 143-154). Ankara: Turkish Psychologists Association.

Ertugrul, O. (2018). *A research on the moderator role of organizational climate in the effect of human resources practices on burnout syndrome* (Unpublished master's thesis). Istanbul University, Istanbul, Turkey.

Fernet, C., Chanal, J., & Guay, F. (2017). What fuels the fire: Job-or task-specific motivation (or both)? On the hierarchical and multidimensional nature of teacher motivation in relation to job burnout. *Work & Stress*, 31(2), 145-163.

Fidan, C. (2014). *The relation between teachers' motivation and enthusiasm in ELT: A descriptive study*. (Unpublished master's thesis). Cukurova University, Adana, Turkey.

Fraenkel, J. R., Wallen, N. E., & Hyun, H. H. (2012). *How to design and evaluate research in education* (8th ed.). New York: Mc Graw Hill.

Frenzel, A. C., Taxer, J. L., Schwab, C., & Kuhbandner, C. (2019). Independent and joint effects of teacher enthusiasm and motivation on student motivation and experiences: A field experiment. *Motivation and Emotion*, 43(2), 255-265.

García-Arroyo, J. A., Osca Segovia, A., & Peiró, J. M. (2019). Meta-analytical review of teacher burnout across 36 societies: the role of national learning assessments and gender egalitarianism. *Psychology & Health*, 34(6), 733-753.

Hadie, S. N. H., Hassan, A., Talip, S. B., & Yusoff, M. S. B. (2019). The teacher behavior inventory: validation of teacher behavior in an interactive lecture environment. *Teacher Development*, 23(1), 36-49.

Hooda, M., & Annu (2018). Teacher enthusiasm may boost teaching effectiveness. *Journal of Emerging Technologies and Innovative Research*, 5(7), 187-191.

Hotaman, D., & Sahin, F. (2010). The effect of instructors' enthusiasm on university students' level of achievement motivation. *Education and Science*, 35(155), 89-103.

Izgar, H. (2001). *Okul yöneticilerinde tükenmişlik [Burnout in school administrators].* Ankara: Nobel.

Joreskog, K. G. & Sorbom, D. (1993). *Lisrel 8: Structural equation modeling with the SIMPLIS command language.* USA: Scientific Software International.

Kanbur, O. (2020). *Investigation of job satisfaction and burnout levels of physics teachers in terms of demographic variables* (Unpublished master's thesis). Gazi University, Ankara, Turkey.

Karaman, T. (2009). *A study on the factors affecting sustainability of teaching passion of teachers.* (Unpublished doctoral thesis). Marmara University, Istanbul, Turkey.

Karasar, N. (2020). *Bilimsel Araştırma Yöntemi [Scientific Research Method]*. Ankara: Nobel.

Kasalak, G., & Dagyar, M. (2020). The adaptation of teacher enthusiasm scale into Turkish language: Validity and reliability study. *International Journal of Curriculum and Instruction*, 12(2), 797-814.

Kayabasi, Y. (2008). The level of burnout of teachers the assessments in terms of some variations. *MANAS Journal of Social Studies*, 20, 191-212.

Keller, M., Neumann, K., & Fischer, H. E. (2013). Teacher enthusiasm and student learning. In Hattie, J. & Anderman, E. M. (Eds.) *International guide to student achievement* (pp. 247-250), USA: Routledge.

Kiral, E., & Diri, M. S. (2016). The effect of job satisfaction of secondary school teachers on their occupational burnout. *Mehmet Akif Ersoy University Journal of Education Faculty*, 1(39), 125-149.

Kim, H. Y. (2013). Statistical notes for clinical researchers: assessing normal distribution (2) using skewness and kurtosis. *Restorative Dentistry & Endodontics*, 37(44), 52-54. doi:10.5395/rde.2013.38.1.52.

Kline, R. B. (2011). *Principles and practice of structural equation modelling*. USA: The Guilford Press.

Kunter, M., Frenzel, A., Nagy, G., Baumert, J., & Pekrun, R. (2011). Teacher enthusiasm: Dimensionality and context specificity. *Contemporary Educational Psychology*, 36(4), 289-301.

Kunter, M., Tsai, Y. M., Klusmann, U., Brunner, M., Krauss, S., & Baumert, J. (2008). Students' and mathematics teachers' perceptions of teacher enthusiasm and instruction. *Learning and Instruction*, 18(5), 468-482.

Lammers, W. J., & Smith, S. M. (2008). Learning factors in the university classroom: Faculty and student perspectives. *Teaching of Psychology*, 35(2), 61-70.

Lincoln, D. L. (2008). Drama in the classroom: How and why marketing educators can use nonverbal communication and enthusiasm to build student rapport. *Marketing Education Review*, 18(3), 53-65.

Maslach C. (2003). Job burnout: New directions in research and intervention, *Current Directions in Psychological Science,* 12(5), 189-192.

Maslach, C., Jackson, S. E., Leiter, M. P., Schaufeli, W. B., & Schwab, R. L. (1986). *Maslach burnout inventory*. CA: Consulting psychologists' press.

OECD (2017). *Education at a glance: OECD indicators*. Retrieved from https://www.oecd.org/education/skills-beyond-school/EAG2017CN-Turkey-Turkish.pdf.

Ozer, N. (2021). *Investigation of the relationship between the pre-service social studies teachers attitudes towards the teaching profession and level of professional enthusiasm*. (Unpublished master's thesis). Inonu University, Malatya, Turkey.

Patrick, H., Turner, J. C., Meyer, D. K., & Midgley, C. (2003). How teachers establish psychological environments during the first days of school: Associations with avoidance in mathematics. *Teachers College Record,* 105(8), 1521-1558.

Polat, S., Ercengiz, M., & Tetik, H. (2012). The investigation in terms of different variables of occupational exhaustion of teachers. *Bartin University Journal of Faculty of Education*, 1(1): 152-173.

Saglam A. G. & Cina B. E. (2008). The concept of burnout: Its importance for individuals and organizations. *Journal of management and economics*, 15(1), 131-148.

Seferoglu, S. S., Yildiz, H. & Avci-Yucel, U. (2014). Teachers' burnout: Indicators of burnout and investigation of the indicators in terms of different variables. *Education and Science*, 39(174): 13-26.

Shoshani, A., & Eldor, L. (2016). The informal learning of teachers: Learning climate, job satisfaction and teachers' and students' motivation and well-being. *International Journal of Educational Research*, 79, 52-63.

Skaalvik, E. M., & Skaalvik, S. (2017). Still motivated to teach. A study of school context variables, stress and job satisfaction among teachers in senior high school. *Social Psychology of Education*, 20(1), 15-37.

Senel, S., & Alatli, B. (2014). A review of articles used logistic regression analysis. *Journal of Measurement and Evaluation in Education and Psychology*, 5(1), 35-52.

Tabachnick, B. G., & Fidell, L. S. (2013). *Using multivariate statistics*. USA: Allyn & Bacon/Pearson Education.

Tas, S., & Aykac, N. (2020). Türkiye'de ortaöğretim sisteminin sorunları ve değerlendirilmesi: Bir meta sentez çalışması [Secondary education system in Turkey and evaluation of problems: A meta-synthesis study]. *Journal of Educational Sciences Research*, 10(1), 22-41.

Tunc, S. (2019). *Effects of life satisfaction on job satisfaction: A research on teachers.* (Unpublished master's thesis). İstanbul Sabahattin Zaim University, İstanbul, Turkey.

Uncu, S. Y. (2007). *The relation between emotional intelligence and marital satisfaction*. (Unpublished doctoral thesis), Ankara University, Ankara, Turkey.

Unsal, S. (2018). A pareto analysis of status of teaching profession in Turkey. *Sakarya University Journal of Education*, 8(2), 111-130.

Weiqi, C. (2007). The structure of secondary school teacher job satisfaction and its relationship with attrition and work enthusiasm. *Chinese Education & Society,* 40(5), 17-31.

Yildirim, M. (2019). *Investigation of burnout and job satisfaction levels of science teachers.* (Unpublished master's thesis). Erciyes University, Kayseri, Turkey.