PRINT: ISSN 0972-0073 ONLINE: ISSN 2456-6802
Anthropologist, 20(3) 385-396 (2015)
DOI: 10.31901/24566802.2015/20.03.02

The Effect of Gender on Teachers' Job Satisfaction: A Meta-analysis

Tufan Aytac

Bozok University, Faculty of Education, Yozgat, Turkey
E-mail: tufana60@gmail.com

KEYWORDS Education. Employee Satisfaction. Sex. Meta-analysis

ABSTRACT The basic purpose of this study is to determine the varying effects on teachers' perception and opinions about job satisfaction in accordance with their gender. Within this scope, 59 studies (master and doctorate thesis, articles) deemed to meet the inclusion criteria were chosen from studies in Turkey to be used in this study. In accordance with the results of this study, an effect size with statistical significance at an insignificant level was determined on the part of male teachers according to a fixed effect model and on the part of female teachers according to a random effect model. As a consequence of the moderator analysis conducted, the effect sizes of the studies were determined to change based on the publication type, the school type, education level, the region in which the research was conducted, the teacher's title and the researcher's gender.

INTRODUCTION

One of the fundamental subjects of recent studies concerning the relationship between an organization's efficiency and employees' effectivity is job satisfaction (JS). Teacher's JS, which is one of the main actors in the field of education, is regarded as one of the factors contributing to the school's efficiency and increasing teachers' performance and commitment to schools (Magee 2013; Menon and Reppa 2011; Metle 2001). Various education leaders and politicians in many countries make an effort to produce policies aimed at eliminating the negative factors influential on the teachers' JS in schools.

Teachers' Job Satisfaction

Within the context of the definitions in literature, job satisfaction is the perception level of employees about values regarding the job, wage, working conditions, promotion and improvement opportunities, as well as their colleagues and the organizational environment (Canbay 2007; Hongying 2007). Zembylas and Papanastasiou (2004) define the teachers' JS as the positive, emotional situation created by the relationship between teachers' expectations and their perception about their teaching role.

Although the relationship between teachers' gender and JS has been investigated extensively, the results of many of the studies so far have been found inconsistent, contradictory and far from unanimous. Where some studies found women teachers more satisfied with their job, others indicated that the men teachers were more content (Crossman and Harris 2006; Ozcan 2013, Sumbul and Sajid 2014). Increase in the studies on teachers' opinions about JS in schools witnessed recently in Turkey led to a necessity to draw a common conclusion by considering the number of samples and synthesizing the results of these studies. Aydin et al. (2012), Brierley (1998), Menon and Reppa (2011), and Tasdan and Tiryaki (2008) noted the need to synthesize the results of these studies on JS in that all have different results. Scanning the literature, it has been seen that there is not a sufficient number of studies dealing with teachers' opinions about JS using the meta-analysis method. Within this context, this study will examine the effect sizes of JS perception and whether there is a difference between the effect sizes obtained through various variables ignored in primary researches.

Objectives

The aim of this study is to determine the effect of gender on teachers' job satisfaction. To this end, the effect size of teachers' perceptions and opinions regarding to this is determined. Also the variables of school type, publication type, and publication year, the region in which the research was carried out, teachers' title, education level, and researcher's gender are tested as moderator variables.

METHODOLOGY

In this section, the research model, data collection and data analysis are included.

Research Model

The meta-analysis method, which is one of the methods used for synthesizing the research results, constitutes this research's model. The process including analysis, synthesis and interpretation of quantitative findings obtained from independent studies through advanced statistical techniques is called meta-analysis. The aim of meta-analysis is to combine the findings of various studies conducted at different times in different places on the same subject so as to reveal the facts about this subject and to achieve the most reliable fact in quantitative terms by increasing the number of samples (Aytac 2014; Cumming 2012).

Data Collection

MA theses and PhD dissertations on teachers' perception and opinions about JS in Turkey are the basic data sources for this study. The keywords "job satisfaction/satisfied with job", "professional satisfaction" and "job compliance" were used to find related material and researches in the National Thesis Archive of the Council of Higher Education. Following the browsing process, 59 of 82 studies on the subject of this study were found convenient for inclusion criteria. In choosing the studies to be included in this study, the following criteria were used:

(i) *Criterion 1*: Published or unpublished references: MA and PhD theses.
(ii) *Criterion 2*: Convenience of the research method of the study: the requirement for being an empirical study and use of tenure of office as an independent variable to obtain the effect size during the meta-analysis.
(iii) *Criterion 3*: Existence of sufficient numeric data: Sample size, mean, standard deviation, F value, t value, χ^2 value, Kruskal Wallis value, Mann Whitney U data and p-value, were considered for male and female teacher groups to determine the effect sizes necessary for a meta-analysis.

Twenty-three studies were not included in the study on the grounds that they used different variables (managers, academic members) and they lacked the data necessary for a meta-analysis. The sample of this study is limited to 59 studies, and MA theses and PhD dissertations on this subject written in Turkey between the years 1999 and 2014.

Coding Protocol Reliability

A coding protocol, which includes the name, content and data of this study has been created. Compliance between Coder-1 and Coder-2 was found to be 89.5 percent. Cohen's Kappa statistics was used to ensure the inter-rater reliability and it was found to be 0.93. This result indicated almost a perfect compliance between the raters (Card 2012).

Validity

The validity and reliability of the meta-analysis depends on the validity and reliability of the studies included in the research. Also, screening and including all related studies which meet the criteria of meta-analysis increases the validity of the study. As Decoster (2004) and Petitti (2000) pointed out, the combined effect size in meta-analysis are as valid as the validity of the studies included. It has seen that, the thesis included in this study have been carried out with valid and reliable research instruments. In this context, it was determined that the validity of data collection instruments had been ensured in all of 59 studies included in the meta-analysis.

Data Analysis

During the analysis of data, one of the methods of meta-analysis compared groups (fixed and random-effects models). Group differences method was used. During this study, the effect sizes, variances and comparisons of the groups included in each study were measured through CMA ver. 2.2.064 [Comprehensive Meta-Analysis], and the Statistical Package Software for Meta-Analysis (Borenstein et al. 2009). This study includes female teachers as the sample group and male teachers as the control group. Thus, a positive status of the effect size is interpreted as being in favor of female teachers, while its negative status is interpreted as being in favor of male teachers.

RESULTS

The related data covered in the studies included in this study was analyzed so as to find an answer to the question of the study. Findings concerning the publication bias, descriptive statistics, forest plot, fixed effect model findings, homogeneity test, random effect model findings and moderator analysis findings obtained from these analyses are given below.

Publication Bias

In this study, publication bias was evaluated through two means: (a) Cone Dispersion Graphic, (b) Orwin's Fail-Safe N. (Borenstein et al. 2009; Cooper et al. 2009).

As reflected in Figure 1, the majority of 59 studies that were included in this study are located on upper side of the figure and very close to the conjoined effect size. In this sense, this cone graphic is one of the indicators of the absence of a publication bias (Borenstein et al. 2009) in terms of the studies included in this study.

Orwin's Fail-Safe N Evaluation was also conducted to test the publication bias. Orwin's Fail-Safe N calculates the number of studies that are likely to be excluded from the meta-analysis (Borenstein et al. 2009). In the consequence of this analysis, Orwin's Fail-Safe N was found to be 126. The necessary number of study for the average effect size found as 0.018 in the consequence of the meta-analysis to reach .01 (trivial) level, in other words, almost to zero effect size is 126. However, 59 studies, which were included in this study, are the total number of studies which meet the inclusion criteria and which are available among all the studies conducted on this subject in Turkey (qualitative, quantitative and theoretical). Impossibility to attain another 126 studies may be accepted as another indicator of the absence of publication bias in this meta-analysis.

In addition, Kendall's Tau coefficient 0.33, which is used for determining whether there is a publication bias or not in statistical terms, was found as p=0.48. Since the fact that p-value does not result in a significant difference under this condition meant that p-value met the expectation to be higher than 0.05, the fact that there is no publication bias in this study was proved in statistical terms.

Non-conjoint Findings of Effect Size Analysis Based on Teachers' Gender

The effect sizes of male and female teachers' perception about JS, standard error and its upper and lower limits based on a reliability level of ninety-five percent are given in Table 1.

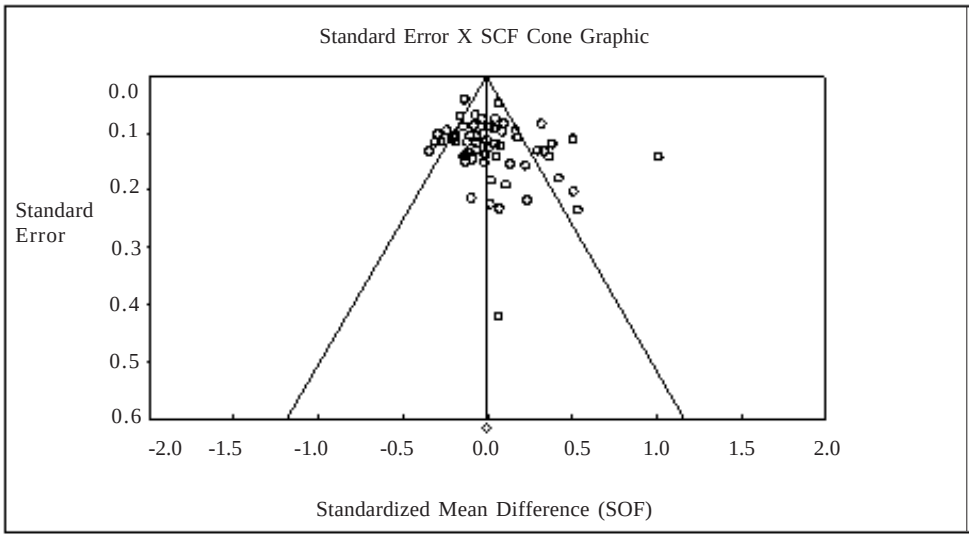

Fig. 1. Cone dispersion graphic of the studies with effect size data on differences among teachers' perceptions about JS in accordance with their gender

Table 1: Effect sizes of teachers' opinions about JS based on their gender

Research name	*Effect size (d)*	*Standard error*	*Variance*	*Lower limit*	*Upper limit*	*Z-value*	*p-value*	*Gender*	
								Male	*Female*
Agaoglu 2011	-0.115	0.136	0.019	-0.382	0.152	-0.842	0.400	84	151
Akkus 2010	0.018	0.226	0.051	-0.424	0.460	0.079	0.937	66	28
Aslan 2013	0.074	0.124	0.015	-0.168	0.317	0.601	0.548	109	163
Ayhan 2006	-0.346	0.133	0.018	-0.606	-0.086	-2.607	0.009	154	92
Bayri 2006	0.108	0.213	0.045	-0.309	0.525	0.507	0.612	33	67
Adiguzel 2010	-0.131	0.140	0.020	-0.407	0.144	-0.936	0.349	96	108
Aknur 2013	-0.013	0.139	0.019	-0.285	0.259	-0.095	0.924	103	105
Aras 2012	-0.050	0.128	0.016	-0.301	0.200	-0.395	0.693	136	112
Bilge 2008	-0.274	0.115	0.013	-0.500	-0.048	-2.376	0.018	227	114
Bilir 2007	0.010	0.089	0.008	-0.165	0.186	0.117	0.907	253	247
Boga 2010	-0.160	0.071	0.005	-0.298	-0.021	-2.256	0.024	381	423
Canbay 2007	0.095	0.124	0.015	-0.147	0.337	0.768	0.442	222	93
Cebeci 2004	-0.203	0.109	0.012	-0.416	0.011	-1.857	0.063	127	252
Ceyhun 2009	0.440	0.120	0.014	0.205	0.674	3.671	0.000	213	107
Turanli 2007	0.063	0.047	0.002	-0.030	0.156	1.335	0.182	1399	653
Cankaya 2010	-0.304	0.042	0.002	-0.386	-0.221	-7.219	0.000	994	1339
Celik 2003	0.069	0.233	0.054	-0.387	0.525	0.295	0.768	29	51
Cetin 2007	-0.032	0.099	0.010	-0.225	0.161	-0.321	0.748	202	210
Cifcili 2007	-0.143	0.089	0.008	-0.317	0.031	-1.606	0.108	271	239
Coskun 2013	-0.019	0.153	0.023	-0.318	0.280	-0.124	0.901	89	83
Demirel 2006	-0.115	0.114	0.013	-0.338	0.107	-1.013	0.311	153	158
Demirsoy 2007	-0.295	0.103	0.011	-0.497	-0.093	-2.863	0.004	168	220
Durak 2009	-0.066	0.130	0.017	-0.320	0.189	-0.506	0.613	89	178
Dundar 2011	0.046	0.119	0.014	-0.188	0.280	0.387	0.699	208	106
Ekinci 2006	-0.132	0.152	0.023	-0.429	0.165	-0.872	0.383	63	142
Gamsiz 2013	-0.091	0.076	0.006	-0.241	0.058	-1.198	0.231	346	343
Genc 2006	0.318	0.218	0.048	-0.109	0.745	1.458	0.145	88	28
Gencturk 2008	0.176	0.108	0.012	-0.037	0.388	1.619	0.106	241	132
Gundogdu 2013	-0.066	0.119	0.014	-0.299	0.168	-0.552	0.581	155	130
Kagan 2005	-0.090	0.147	0.022	-0.377	0.198	-0.613	0.540	186	62
Karaca 2007	0.523	0.207	0.043	0.117	0.930	2.523	0.012	40	60
Karahan 2006	0.420	0.149	0.022	0.127	0.713	2.813	0.005	113	77
Karakus 2008	0.223	0.157	0.025	-0.085	0.532	1.419	0.156	261	48
Kartal 2006	-0.260	0.096	0.009	-0.449	-0.071	-2.701	0.007	194	248
Kilic 2013	-0.026	0.102	0.010	-0.226	0.174	-0.255	0.799	158	243
Kilic 2011	-0.078	0.087	0.008	-0.249	0.093	-0.892	0.372	223	321
Korkmaz 2013	0.297	0.131	0.017	0.040	0.554	2.263	0.024	108	129
Kumas 2008	0.261	0.101	0.010	0.062	0.459	2.575	0.010	218	179
Mavi 2008	0.552	0.214	0.046	0.133	0.971	2.582	0.010	28	112
Okan 2010	0.266	0.103	0.011	0.063	0.468	2.574	0.010	256	150
Meziroglu 2005	-0.091	0.111	0.012	-0.309	0.127	-0.820	0.412	163	161
Orhan 2013	0.205	0.155	0.024	-0.099	0.509	1.323	0.186	144	59
Ocal 2011	0.683	0.111	0.012	0.466	0.900	6.158	0.000	294	120
Ozcan 2013	-0.251	0.103	0.011	-0.454	-0.049	-2.433	0.015	183	195
Ozturk 2007	-0.140	0.142	0.020	-0.417	0.137	-0.989	0.323	94	107
Sonmez 2007	-0.097	0.214	0.046	-0.517	0.324	-0.450	0.652	68	32
Sahin 1999	0.427	0.086	0.007	0.258	0.595	4.957	0.000	359	224
Tomrukcu 2010	0.649	0.134	0.018	0.386	0.911	4.839	0.000	141	100
Tunc 2013	0.648	0.254	0.064	0.151	1.146	2.554	0.011	21	69
Turkoglu 2008	-0.190	0.116	0.013	-0.418	0.038	-1.635	0.102	115	211
Yapicikardesler 2007	-0.333	0.116	0.014	-0.561	-0.105	-2.866	0.004	208	117
Yildiz 2010	-0.104	0.105	0.011	-0.309	0.101	-0.993	0.321	205	165
Yuksel 2009	0.021	0.183	0.034	-0.338	0.380	0.113	0.910	55	65
Zog 2007	-0.118	0.116	0.014	-0.347	0.110	-1.018	0.309	158	139
Cek 2011	0.015	0.117	0.014	-0.215	0.245	0.126	0.900	141	150
Citak 2008	0.043	0.094	0.009	-0.141	0.227	0.454	0.650	243	213
Gencer 2004	0.046	0.076	0.006	-0.102	0.195	0.613	0.540	420	300
Sadik 2014	0.086	0.098	0.010	-0.106	0.278	0.878	0.380	243	184
Cardak 2002	0.053	0.141	0.020	-0.225	0.330	0.372	0.710	101	99
Fixed	-0.018	0.014	0.000	-0.045	0.009	-1.308	0.191	11840	10413
Random	0.026	0.032	0.001	-0.036	0.089	0.821	0.412	11840	10413

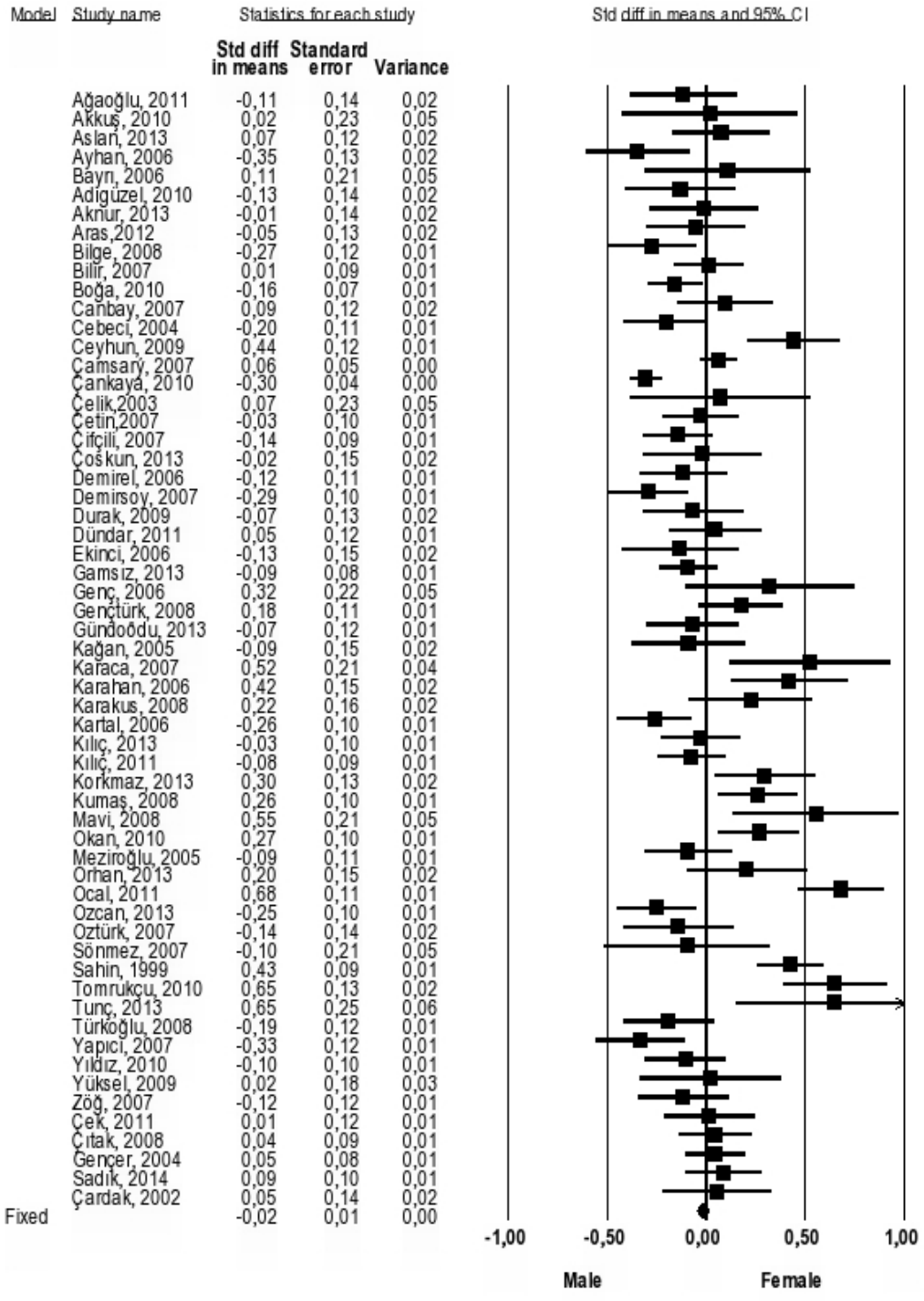

Fig. 2. Forest plot of the effect sizes of teachers' perception about JS based on gender

In accordance with Table 1, the standardized mean difference (SMD=SOF) based on gender in these 59 studies, varies from -0.346 in favor of male teachers to 0.683 in favor of female teachers. A statistically significant difference (p <0.05) was found in 19 studies while no significant difference was determined in 40 studies.

Forest Plot of the Studies Including Data on Gender

When Figure 2 is examined, a difference higher than zero in favor of male teachers is observed in accordance with fixed effect model.

Findings of Effect Size Meta-analysis of Teachers' Gender Conjoined in Accordance with Fixed and Random Effect Models

The average effect size of the perception of male and female teachers about JS in schools conjoined in accordance with fixed and random effect models (without subtracting the outliers), standard error and its upper and lower limits based on a confidence interval of ninety five percent are given in Table 2.

In Table 2, the average effect size value obtained from the effect size values of the studies included in this study based on gender variable in accordance with fixed effect model was calculated as ES=-0.018 whereas the standard error of the average effect size, the upper limit and lower limit of confidence interval of the average effect size was calculated as SE=0.014; 0.009; and -0.045, respectively. Data obtained from 59 studies included in this study based on the calculations showed that male teachers have a more positive opinion about JS than their female counterparts, in accordance with fixed effect model. The classification of Thalheimer and Cook (2002) shows that there is an insignificant difference (-0.15-0.15). When statistical significance is calculated according to Z test, Z=-1.308. The obtained result was found to have a statistical significance with p=0.005.

Homogeneity Test and Q and I^2 Statistics

Homogeneity test, in other words, Q statistics, was calculated as Q=275.527. 58 degrees of freedom at a significance level of ninety five percent from x^2 table was found to be 77.2. The hypothesis on the absence of homogeneity in terms of the distribution of effect sizes was rejected in the fixed effect model because Q-statistics value (Q=275.527) exceeded the critical chi-square distribution value (x^2 0.95 =77.2) with a degree of freedom of 58. Thus, effect sizes distribution was determined to be heterogeneous in accordance with fixed effect model.

I^2, which was developed as a supplement to Q statistics, put forth a clearer result concerning heterogeneity. I^2 shows the rate of total variance about the effect size. As opposed to Q-statistics, I^2 statistics are not affected by number of studies. During the interpretation of I^2, twenty-five percent indicates a low-level heterogeneity, fifty percent indicates a mid-level heterogeneity and seventy five percent shows a high-level heterogeneity (Cooper et al. 2009: 263). Since a level of heterogeneity close to a high-level heterogeneity was found between the studies in the consequence of the homogeneity test for the purpose of gender variable (Q and I^2) the model to be used for conjoining process was transformed into a random model.

Findings of the Meta-analysis on the Effect Sizes of Teachers' Gender in accordance with Random Effect Model

Through the data obtained from 59 studies included in this study based on gender variable in accordance with random effect model, the standard error of the average effect size, the upper

Table 2: Findings of effect size meta-analysis based on gender variable conjoined in accordance with the fixed effect model and random effect model and homogeneity test

Model	*Effect size and confidence interval of 95%*						*Homogeneity*			
	Number of studies	*Point estimate*	*Standard error*	*Variance*	*Lower limit*	*Upper limit*	*Z-value*	*Q-value*	*df*	I^2
Fixed effect	59	-0.018	0.014	0.000	-0.045	0.009	-1.308	275.527	58	78.949
Random effect	59	0.026	0.032	0.001	- 0.036	0.089	0.821			

limit and lower limit of confidence interval of the average effect size was calculated as SE=0.022; 0.062; and -0.025, respectively as d=0.018 whereas the standard error of the average effect size, the upper limit and lower limit of the confidence interval of ninty-five percent were calculated as SE=0.032; 0.089; and -0.036, respectively; whereas the effect size value was calculated as ES = 0.026. Thus, teachers' perception about JS was determined to be more positive in favor of female teachers than their male counterparts (Table 2). In accordance with the classification of Thalheimer and Cook (2002), this is an extremely low-level effect size (-0.15-0.15. When statistical significance is calculated according to Z test, Z=0.821. The result obtained, that is to say, was determined to have statistical significance with *p*=0.034.

Results of Moderator Analysis in Terms of Gender Variable

The results of the moderator analysis put forth the reasons for this heterogeneity are given in Table 3.

In the consequence of the moderator analysis conducted, the effect sizes were found to vary depending on the publication type (*p*=0.000), school type (*p*=0.034), education level (p=0.013), the region of the study (*p*=0.000), teachers' title (*p*=0.000), and researcher's gender (*p*=0.007). In terms of publication type, results of the MA thesis were found to be in favor of female teachers (d=0.018), while the results of PhD dissertation were found to be in favor of male teachers (d=-0.137). Within the context of the moderator effect of the researcher's gender, it may be said that the direction of teachers' JS perception

Table 3: Categorical moderator results about the effect of gender on JS

Moderator	*k*	*d*	*SE*	*95% CI*	*Q*
Education Level					
Pre-school	2	0.017	0.099	[-0.177; 0.210]	59.6412
Primary	28	-0.052	0.018	[-0.087; -0.016]	
Secondary	14	-0.059	0.033	[-0.125; 0.006]	
Primary/Secondary	11	0.255	0.039	[-0.178; 0.332]	
Counseling and research center	2	0.011	0.083	[-0.151; 0.174]	
Course		-0.153	0.055	[-0.261; -0.045]	
School Type					
Private	2	0.153	0.055	[-0.261; -0.045]	6.773
Public	41	-0.015	0.017	[-0.048; 0.018]	
Private-Public	16	0.006	0.027	[-0.047; 0.058]	
Publication Type					
MA	55	0.018	0.016	[-0.013; 0.049]	22.121
PhD	4	-0.137	0.029	[-0.194; -0.081]	
Teacher's Title					
Grade	29	-0.045	0.017	[-0.078; -0.011]	49.057
Branch	19	-0.069	0.029	[-0.126; 0.013]	
Grade-Branch	9	0.272	0.044	[0.185; 0.358]	
Counselor	2	0.065	0.155	[-0.238; 0.369]	
Region of the Study					
Eastern Anatolia	4	0.044	0.064	[-0.081; 0.170]	57.767
Aegean	10	0.103	0.031	[-0.043; 0.163]	
Southeastern	4	-0.245	0.038	[-0.319; 0.170]	
Central Anatolia	15	-0.071	0.032	[-0.135; 0.008]	
Black Sea	6	-0.020	0.037	[-0.092; 0.053]	
Marmara	18	0.028	0.028	[-0.092; 0.053]	
Turkey (in general)	2	0.008	0.066	[-0.121; 0.138]	
Researcher's Gender					
Male	32	-0.086	0.019	[-0.124;-0.048]	25.334
Female	27	0.054	0.020	[0.015; 0.093]	

Note: k=number of studies, d=Cohen's d, SE= Standard Error, CI= Confidence Interval, Q=heterogeneity among the studies

Comparison analyses were made for those studies whose number of subgroups is 2 and more.

$^{*}p<.05$

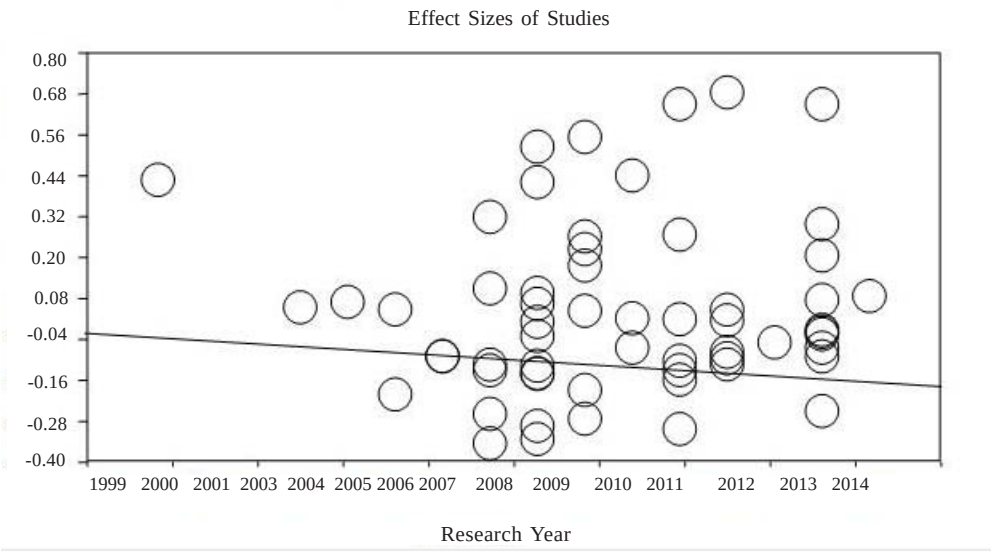

Fig. 3. Effect sizes meta-regression results based on the years in which the research was conducted

changes in favor of male teachers when the researcher is male (d=-0.086), whereas it changes in favor of female teachers when the researcher is female (d=0.054).

As reflected in Figure 3, an increase tendency in favor of female teachers in gender difference by years in terms of the effect sizes of the studies is observed.

DISCUSSION

In this study, 59 effect sizes related to 59 studies constituting a sample of 22.253 people were calculated. In the consequence of the conjoining process in the Fixed Effect Model, a statistically significant effect size of -0.018 in favor of male teachers was determined. This result may be regarded as low and insignificant in accordance with the classification of Thalheimer and Cook (2002). As a result of the conjoining process in Random Effect Model, a statistically significant effect size of 0.026 in favor of female teachers was found. When these results are evaluated together, they show that there is a difference, which may be regarded as insignificant among teachers' perceptions about JS in terms of gender variable as well as of social sciences.

In studies on teachers' JS, gender is a frequently investigated variable. The investigation of this variable as a determinant of JS is a sensitive issue. This is because there is a substantial increase in the number of women joining the labor force in recent times, and this has generated considerable interest for the need to investigate the influence of gender on JS (Ali and Dahie 2015; Saiti and Papadopoulos 2015).

Results of the studies of Aydin et al. (2012), Boga (2010), Crossman and Harris 2006, Demirsoy (2007), Cankaya (2010), Kartal (2006), Liping and Qiaoxiang (2004), Liu and Ramsey (2008), Menon and Reppa (2011), Ozcan (2013), Sumbul and Sajid (2014) are in parallel with the results of this study indicating that there is low-level difference in favor of male teachers in terms of gender variable in accordance with fixed effect model.

Different results are observed from researches including a comparison of teachers' perception about JS based on their gender. In various researches conducted to determine effect of gender on teachers' JS (Aydin et al. 2012; Chen and Sun 1994; Demirtas 2010; De Nobile and McCormick 2008; Magee 2013) female teachers were found to have more positive opinions and perceptions than their male counterparts. Klecker and Loadman (1999), in their study, suggested that female teachers' JS level is at a higher level in terms of their communication with their col-

leagues and of education whereas Koustelios's study (2001) suggested the same is true in terms of working conditions. In some researches (Crossman and Harris 2006; Joo et al. 2013; Mertler 2002) it was observed that, in primary and secondary schools, male teachers have more JS than their female counterparts even if it was at a low level. In contrast, some studies showed that teachers' gender does not have a determining role in their perception about JS (Carlson and Mellor 2004; Crossman and Harris 2006; Mason 1995).

In a number of studies, (Borg and Falzon 1989; Demirtas 2010; Gunbayi 2001; De Nobile and McCormick, 2008) female teachers were observed to have more JS than their male counterparts. Studies conducted in Europe in this field showed that female teachers have more JS even though they are disadvantaged in terms of their expectations about income, recruitment, resignment, promotion and career opportunities (Aydin et al. 2012; Klassen and Chiu 2010; Saiti and Papadopoulos 2015). The statistically significant effect size of 0.026 in favor of female teachers obtained in the consequence of the conjoining process followed in accordance with random effect model supports the results of these studies. Accordingly, the fact that female teachers' JS level is higher than their male counterparts even if it is at an insignificant level is in compliance with the assumption that teaching is perceived as a profession which is more convenient for female employees and for that reason their JS may naturally be higher than their male counterparts (Menon and Reppa 2011; Magee 2013).

Findings of the study by Crossman and Harris (2006) showing that female teachers who work for private schools have a high level JS are in compliance with the results of this study, whereas findings obtained from the study of Tasdan and Tiryaki (2008) showing that JS perception of male teachers who work for private schools is higher than that of their female counterparts contradict the findings of this study.

The reason why teaching is perceived as more a profession suitable for female employees and of girls' preference of teaching as a profession more frequently may be the fact that teaching is conducted within a certain period of the year and within certain working hours, which enables them to have more time and opportunity to deal with their private life and children and provides them with independence in socio-economic terms. It is suggested that a regular job under state insurance in Turkey, as well as respect of the students and their parents for teachers may be other reasons for the high level JS of female teachers (Turanli 2007).

Within the context of the results of this study and in terms of the year in which the research is conducted, the increase in female teachers' JS witnessed in recent years may be a result of the fact that it is preferred more as a profession. It may also be a consequence of the improvements in working conditions and promotion expectations. In addition, the advantages of teaching as a profession such as its contribution to female teachers' self-competence, to their economic independence and the possibility to have more time during which they could spare for their family and children may be regarded as other influential factors. As Erturk (2013) suggests, the existence of the perception that teaching is more suitable for female employees as a profession and of the interpretation that a more protective attitude towards women is adopted in schools in Turkey may be said to support the results of this study.

CONCLUSION

In the results of this meta-analysis, there is a difference, which may be regarded as insignificant among teachers' perceptions about JS in terms of the gender variable. As a consequence of the moderator analysis conducted, the effect sizes of the studies were determined to change based on the publication type, the school type, education level, the region in which the research was conducted, the teacher's title and the researcher's gender.

RECOMMENDATIONS

In the light of the results of this study, further studies should be conducted to reveal and discuss the reasons for the fact that female teachers have higher JS perception than their male counterparts when teachers' perception about JS is examined in terms of gender variable even if it is at a low level. Other meta-analyses may be made through predicting variables such as marital status, school type and seniority other than gender.

REFERENCES

Those references marked with the asterisk (*) indicate those studies included in the meta-analysis.

*Adiguzel Z 2010. *Job Satisfaction of Science and Technology Teachers in Primary Education.* MA Dissertation, Unpublished. Ankara: Gazi University.

*Agaoglu O 2011. *Job Satisfaction of Administrators and Teachers in the Science and Arts Centres.* Master's MA Dissertation, Unpublished. Ankara: Ankara University.

*Akkus O 2010. *The Evaluation of the Job Satisfaction Levels of the Guidance Counsellors Working at the Guidance Research Centres.* MA Dissertation, Unpublished. Ankara: Ankara University.

*Aknur E 2013. *The Connection Between the Inclination of Secondary School Teachers Towards Being a Director and Theýr Job Satisfaction Levels: Beykoz Example.* MA Dissertation, Unpublished. Istanbul: Istanbul Aydin University.

Ali YS, Dahie AM 2015. Leadership style and teacher job satisfaction: Empirical survey from secondary schools in Somalia. *Research on Humanities and Social Sciences*, 5(8): 84-89.

*Aras A 2012. *Relations Among Mobbing Levels, Organizational Commitment and Job Satisfaction of Music Teachers Working in Elementary Schools.* PhD Thesis, Unpublished. Ankara: Gazi University.

*Aslan U 2013. *Analysis of The Relationship Between School Principals' Leadership Styles and Teachers' Job Satisfaction.* MA Dissertation, Unpublished. Gaziantep: Gaziantep University.

Aydin A, Uysal S, Sarier Y 2012. The effect of gender on job satisfaction of teachers: a meta-analysis study. *Procedia-Social and Behavioral Sciences,* 46: 356-362.

*Ayhan F 2006. *The Relationship Between Teachers' Job Satisfaction and Leadership Behaviour Styles of the School Management.* MA Dissertation, Unpublished. Istanbul: Yeditepe University.

Aytac T 2014. The effect of school type on intimidation (mobbing) experienced by teachers in schools: A meta-analysis. *Educational Research and Reviews*, 9(20): 1055-1064.

*Bayri H 2006. *The Evaluation of Job Satisfaction Level of Counselors who are Employed at High Schools in the Southeastern Anatolia Region.* MA Dissertation, Unpublished. Diyarbakir: Dicle University.

*Bilge C 2008. *The Relation between the Participation the Decision Making and the Job Satisfaction.* MA Dissertation, Unpublished. Ankara: Gazi University.

*Bilir ME 2007. *The Relationship between the Transformational Leadership Behaviours of Administrators and the Job Satisfaction of Teachers at Primary School.* MA Dissertation, Unpublished. Konya: Selcuk University.

*Boga C 2010. *The Effect of Level of Primary Managers' Leadership Behaviour to Job Satisfaction of Teachers (Samsun Province Sample).* MA Dissertation, Unpublished. Samsun: Ondokuz Mayis University.

Borenstein M, Hedges LV, Higgins JPT, Rothstein HR 2009. *Introduction to Meta-analysis*. West Sussex-UK: John Wiley and Sons Ltd.

Borg MG, Falzon JM 1989. Stress and job satisfaction among primary school teachers in Malta. *Educational Review,* 41(3): 271-279.

Brierley JA 1998. A meta-analytic review of relationships involving accountants' professional commitment. *Asia-Pacific Journal of Accounting*, 5(1): 45-73.

*Canbay S 2007. *The Relationship Between The Locus of Control and Job Satisfaction of the Elementary School Teachers.* MA Dissertation, Unpublished. Izmir: Dokuz Eylul University.

Card NA 2012. *Applied Meta-analysis for Social Science Research.* New York: The Guilford Press.

Carlson JH, Mellor S 2004. Gender-related effects in the job-design-job satisfaction relationship: An interactional approach. *Sex Roles*, 51(3/4): 237-247.

*Cebeci O 2004. *Influencing Factors on Primary School Teachers' Job Satisfaction Kirsehir Province Example.* MA Dissertation, Unpublished. Kutahya: Dumlupinar University.

*Ceyhun AT 2009. *Job Stress, Perceived Social Support and Job Satisfaction in Teachers Working With Mentally Retarded Children.* MA Dissertation, Unpublished. Bolu: Nigde University.

Chen Y, Sun S 1994. Study on the measurement of teacher job satisfaction. *Psychology Science*, 3: 146-149.

Cooper H, Hedges LV, Valentine JC 2009. *The Handbook of Research Synthesis and Meta-Analysis.* 2nd Edition. New York: Russell Sage Publication.

Crossman A, Harris P 2006. Job satisfaction of secondary school teachers.*Educational Management Administration and Leadership*, 34(1): 29-46.

Cumming G 2012. *Understanding the New Statistics*. New York: Routledge, Taylor and Francis Group.

*Cankaya I 2010. *The Effect of School Safety on The Level of School Teacher's Anxiety, Motivation and Job Satisfaction.* PhD Thesis, Unpublished. Elazig: Firat University.

*Cardak M 2002. *The Relationship the Satisfaction of Primary School Teacher and Cope with Stress.* Unpublished Master's Thesis. Nigde: Nigde University.

*Cek F 2011. *The Relationship Cultural Leadership Behaviours of Independent Kindergarten and the Primary School Principals with the Pre-school Teachers' Job Satisfaction Levels of Those Working in Schools.* MA Dissertation, Unpublished. Izmir: Dokuz Eylul University.

*Celik B 2003. *Job Satisfaction of Science and Physics-Chemistry-Biology Teacher.* MA Dissertation, Unpublished. Kirikkale: Kirikkale University.

*Cetin H 2007. *The Level of Primary School Teacher's Performance and Job Satisfactions Levels.* MA Dissertation, Unpublished. Istanbul: Yeditepe University.

*Citak MA 2008. *Measuring and Comparing of the Job Satisfaction Level of the Teachers Who Work at Public and Private Elementary Schools within Istanbul.* MA Dissertation, Unpublished. Edirne: Trakya University.

*Cifcili V 2007. *The Relationship Between Job Satisfaction and Efficacy Levels of Private Course Teachers.* Master's Thesis Unpublished. Istanbul: Istanbul University.

*Coskun G 2013. *Discussion on the Effect of Teachers' Job Satisfaction Perceptions of Working in Primary School: Example of Ankara Kecioren.* MA Dissertation, Unpublished. Ankara: Gazi University.

*Demirel F 2006. *Job Satisfaction of the Primary School Teachers*. MA Dissertation, Unpublished. Denizli: Pamukkale University.

*Demirsoy MA 2007. *A Study on the Relation Between Job Satisfaction and Organizationel Commitment of Physical Education Teachers.* MA Dissertation, Unpublished. Bolu: Abant Izzet Baysal University.

Demirtas Z 2010. Teachers' job satisfaction levels. *Procedia Social and Behavioral Sciences*, 9: 1069-1073.

De Nobile JJ, McCormick J 2008. Job satisfaction of Catholic primary school staff: A study of biographical differences. *International Journal of Educational Management*, 22(2): 135-150.

*Durak S 2009. *The Comparison between Teachers Social Support Perceptions and Job Satisfaction Levels.* MA Dissertation, Unpublished. Istanbul: Yeditepe University.

*Dundar T 2011. *The Relationship between Teachers Organizational Justice Perceptions and Job Satisfaction Levels.* MA Dissertation, Unpublished. Istanbul: Yildiz Teknik University.

*Ekinci Y 2006. *The Comparison of Job Satisfaction and Work Stress Levels of Teachers Based on the Level of Social Skills of the Administrators of Primary Schools.* MA Dissertation, Unpublished. Gaziantep: Gaziantep University.

Erturk A 2013. Mobbing behaviour: Victims and the affected. *Educational Sciences: Theory and Practice*, 13 (1), 169-173.

*Gamsiz S 2013. *Stress Resources, Self-efficacy, Type a Personality and Job Satisfaction Among Teachers.* MA Dissertation, Unpublished. Istanbul: Istanbul University.

*Genc M 2006. *The Comparison of Private and Public School Techers' Job Satisfaction Levels.* MA Dissertation, Unpublished. Istanbul: Yeditepe University.

*Gencer ET 2004. *The Overall Job Satisfaction and the Curricullum Satisfaction of the Teachers at the Second Cycle of Public Elementary School.* MA Dissertation, Unpublished. Ankara: METU.

*Gencturk A 2008. *The Analysis of Primary School Teachers' Self-efficacy Beliefs and Job Satisfactions in Terms of Various.* MA Dissertation, Unpublished. Zonguldak: Kara Elmas University.

Gunbayi 2001. Primary school teachers' job satisfactions. *Educational Sciences: Theory and Practice,* I/2: 337-356.

*Gundogdu GB 2013. *A Research on Career Satisfaction and Professional Burnout Levels of Class Teachers: The Case Study of Mersin.* MA Dissertation, Unpublished. Ankara: Ankara University.

Hongying S 2007. Literature review of teacher job satisfaction. *Chinese Education and Society*, 40(5): 11-16.

Joo H, Kim T, Nam J, Lee S 2013. A meta-analysis on the variables of teacher job satisfaction. *The Journal of Educational Administration*, 31(1): 133-157.

*Kagan M 2005. *Resarch on School Counselors' Job Satisfactions Working at State and Private Elementary Schools, and Guidance and Research Centers in Ankara.* MA Dissertation, Unpublished. Ankara: Ankara University.

*Karaca B 2007. *A Comparison of the Levels of the Job Satisfaction for the Teachers of Physical Education Who Work at Private and Government Primary and Secondary Schools in Ankara*. MA Dissertation, Unpublished. Ankara University.

*Karahan C 2006. *The Opinions of the Secondary Level Elementary School Teachers Considering Their Self-perception and Job Satisfactions Levels.* MA Dissertation, Unpublished. Izmir: Ege University.

*Karakus A 2008. *The Opinions of Profession Lecture Teachers in Health Vocational High Schools (Ankara City Model).* MA Dissertation, Unpublished. Mugla: Mugla University.

*Kartal S 2006. *A Comparative Analysis of Job Satisfaction Levels of In-Field and Out-of-Field Primary School Teachers Appointed in Nevsehir.* MA Dissertation, Unpublished. Kayseri: Erciyes University.

*Kilic OS 2011. *The Perception of theTeachers Who Work in Primary Schoolss Concerning Job Satisfaction (The Sample of Tokat Province).* MA Dissertation, Unpublished. Konya: Selcuk University.

*Kilic Y 2013. *The Relationship between Perceptions of Organizational Justice and Job Satisfaction of the Secondary School Teachers*. MA Dissertation, Unpublished. Elazig: Firat University.

Klassen RM, Chiu MM 2010. Effects on teachers' self-efficacy and job satisfaction: Teacher gender, years of experience, and job stress. *Journal of Educational Psychology*, 102(3): 741-756.

Klecker BM, Loadman WE 1999. Male elementary school teachers' ratings of job satisfaction by years of teaching experience. *Education*, 119(3): 504-513.

*Korkmaz A 2013. *Investigation of the Relationship Between Primary and Secondary School Teachers' Conflict Management Strategies and Job Satisfaction.* MA Dissertation, Unpublished. Istanbul: Okan University.

Koustelios AD 2001. Personal characteristics and job satisfaction of Greek teachers. *International Journal of Educational Management*,15(7): 354-8.

*Kumas V 2008. *The Relationship Between Teachers' Job Satisfaction Level and Stress Level.* MA Dissertation, Unpublished. Istanbul: Yeditepe University.

Liping L, Qiaoxiang H 2004. Teacher job satisfaction and teacher inspiration. *Human Normal University Education Science Journal* 3(4): 90-93.

Liu XS, Ramsey J 2008. Teachers' job satisfaction: Analyses of the Teacher Follow-up Survey in the United States for 2000-2001. *Teaching and Teacher Education*, 24: 1173-1184.

Magee W 2013. Anxiety, demoralization, and the gender difference in job satisfaction. *Sex Roles*, 69: 308-322.

Mason ES 1995. Gender differences in job satisfaction. *The Journal of Social Psychology*, 135(2): 143-151.

*Mavi L 2008. *The Identification of Physical Teachers' Job Satisfaction Levels*. MA Dissertation, Unpublished. Kutahya: Dumlupinar University.

Menon ME, Reppa AA 2011. Job satisfaction among secondary school teachers: The role of gender and experience, *School Leadership and Management*, 31(5): 435-450.

Mertler CA 2002. Job satisfaction and perception of motivation among middle and high school teachers. *American Secondary Education*, 31(1): 43-53.

*Meziroglu M 2005. *Measurement of Primary School Teachers and Junior High School Teachers' Job Sat-*

isfaction. MA Dissertation, Unpublished. Zonguldak: Kara Elmas University.

Metle MK 2001. Education, job satisfaction and gender in Kuwait. *The International Journal of Human Resource Management*, 12(2): 311-332.

*Okan H 2010. *The Relationship between Job Satisfaction and Mobbing.* MA Dissertation, Unpublished. Istanbul: Maltepe University.

*Orhan N 2013. *Job Satisfaction and Occupational Attitudes Levels of Traniee Teachers.* MA Dissertation, Unpublished. Izmir: Dokuz Eylul University.

*Ocal O 2011. *The Level of Job Satisfaction of Preservice Teachers.* MA Dissertation, Unpublished. Ankara: Maltepe University.

*Ozcan ZE 2013. *Job Satisfaction of Primary School Teachers Nigde Sample*. MA Dissertation, Unpublished. Ankara: Gazi University.

*Ozturk AY 2007. *Job Satisfaction of Chemistry Teachers in Secondary Education.* Unpublished Master's Thesis. Istanbul: Yeditepe University.

Petitti DB 2000. *Meta-analysis, Decision Analysis, and Cost-effectiveness Analysis.* 2nd Edition. New York: Oxford University Press.

*Sadik O 2014. *Examination on the Relationship between Primary School Teachers' Mobbing Experiences Perceived Social Support and Job Satisfaction.* MA Dissertation, Unpublished. Istanbul: Yeditepe University.

Saiti A, Papadopoulos Y 2015. School teachers' job satisfaction and personal characteristics: A quantitative research study in Greece. *International Journal of Educational Management*, 29(1): 73-97.

*Sahin I 1999. *Job Satisfactions Levels of Elementary Schools Teachers Who work in Primary Schools.* MA Dissertation, Unpublished. Izmir: Dokuz Eylul University.

*Sonmez E 2007. *The Level of Job Satisfaction of Maths Teachers Working at Primary and High Schools.* MA Dissertation, Unpublished. Istanbul: Yeditepe University.

Sumbul T, Sajid SM 2014. Job satisfaction among college teachers: A comparative analysis. *The IUP Journal of Organizational Behavior*, XIII(1): 33-50.

Tasdan M, Tiryaki E 2008. Comparison of the level of job satisfaction between at private and state primary school teachers. *Education and Science*, 33(147): 54-70.

Thalheimer W, Cook S 2002. How to Calculate Effect Sizes From Published Research Articles: A Simplified Methodology. From <http://work- learning.com/effect_sizes.htm> (Retrieved on 10 May 2014).

*Tomrukcu C 2010. *Life and Work Satisfaction Levels of Teachers in Public and Private Primary Schools.* MA Dissertation, Unpublished. Samsun: Ondokuz Mayis University.

*Tunc V 2013. *A Study of History Teachers' Job Satisfaction and Professional Burnout Levels With Regards to Some Variables: Sample for Province of Van*. PhD Thesis, Unpublished. Van: Yuzuncu Yil University.

*Turanli A 2007. *The Analysis of the Relatonship Between Teachers Job Satisfaction and Organizational Commitment.* PhD Thesis, Unpublished. Izmir: Dokuz Eylul University.

*Turkoglu M 2008. *The Effect of Organizational Culture on Job Satisfaction at High Schools (Sample of Malatya city).* MA Dissertation, Unpublished. Elazig: Firat University.

*Yapicikardesler E 2007. *The Relationship between Job Satisfaction and Value Preference of Teachers.* MA Dissertation, Unpublished. Istanbul: Yeditepe University.

*Yildiz O 2010. *The Job Satisfaction Levels of the Teachers Working in Vocational and Technical High Schools Located in City Center of Izmir.* MA Dissertation, Unpublished. Izmir: Dokuz Eylul University.

*Yuksel O 2009 *The Research of Physical Education Teachers' Job Satisfaction*. MA Dissertation, MA Dissertation, Unpublished. Istanbul: Yeditepe University.

Zembylas M, Papanastasiou E 2004. Job satisfaction among school teachers in Cyprus. *Journal of Educational Administration*, 42: 357-374.

*Zog H 2007. *The Relationship Between Organizational Commitment and Job Satisfaction of Teachers Working in the Primary Schools of Kagithane District of Istanbul.* MA Dissertation, Unpublished. Istanbul: Yildiz Teknik University.