



## The Relationship Between Teachers' Self-Efficacy Beliefs and Job Satisfaction Levels: A Meta-Analysis Study

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### Abstract

In this study, it is aimed to examine the relationship between teachers' self-efficacy beliefs and job satisfaction levels with the meta-analysis method. For this purpose, it has been investigated whether there is a significant difference between the effect sizes of the studies examining the relationships between teachers' self-efficacy beliefs and job satisfaction levels according to the moderator variables. The studies examining the relationship between teachers' self-efficacy beliefs and job satisfaction levels in the years 2000- 2018 including the number of samples and correlation coefficient (or t value) were included in the study. The studies within the scope of this study were accessed by scanning the YÖK National Thesis Center, Google Academic, and Proquest databases. As a result of the literature review, 35 studies that were following the selection criteria of the research were included in the meta-analysis. In the study, "Fisher's Z" value was used to calculate the effect size values. The effect direction and overall effect size of the studies within the scope of the study were calculated according to the random-effects model. As a result of the analysis, it was determined that the overall effect size of the relationship between teachers' self-efficacy beliefs and job satisfaction levels was positive and moderate. Besides, it was observed that there was no significant difference between the effect sizes of the studies examining the relationships between teachers' self-efficacy beliefs and job satisfaction levels according to the moderator variables (the type of publication, study year, study location, type of school and type of scales used in the studies).

### Keywords

Teacher  
Self Efficacy  
Job Satisfaction  
Meta-analysis

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## Introduction

Job has a basic function in achieving the economic gain required for the survival of individuals (Eğinli, 2009). Considering that a working individual spends a large part of his time in the workplace for 25-30 years, his job satisfaction is as important as his job in terms of his physical and psychological health (Telman & Ünsal, 2004). Job satisfaction is defined as the attitude or the pleasure, satisfaction, or happiness he/she has developed as a result of the perceptions of the individual about his / her work (Davis, 1988; Gedik & Üstüner, 2017; Keser, 2005). According to another definition, job satisfaction is an attitude, pleasure, or emotional situation that the employee reaches as a result of evaluating himself/herself and his / her job (Gümüş, 2017). Job satisfaction is seen as one of the most important requirements for individuals to be happy, successful, and productive (Günbayı & Tokel, 2012). A high level of job satisfaction poses positive effects on the physical and mental health of the employees while low job satisfaction can cause various physical illnesses (shortness of breath, headache, loss of appetite, nausea, etc.) and psychological problems (anxiety, burnout, etc.) (Türk, 2007). It is known that job satisfaction affects not only the individual but also the organization. High job satisfaction leads to desirable results by the organization, such as the rate of labor force turnover and absenteeism, organizational commitment, and high productivity due to increased organizational citizenship behavior (Akomolafe & Olatomide, 2013; Çetinkanat, 2000; Ghazzawi, 2008; Ghazzawi & Smith, 2009; Kristof, 1996; Oyewobi, Suleiman, & Muhammad-Jamil, 2012; Robbins & Judge, 2012; Verquer, Beehr, & Wagner, 2003). But, the low level of job satisfaction may lead to negative outcomes such as quitting, absenteeism, or poor performance (Feldman & Arnold, 1983).

As in all organizations, job satisfaction is of great importance in education organizations. The condition that teachers can successfully fulfill the duties and responsibilities imposed on them is related to the satisfaction they receive from their profession (Gençtürk & Memiş, 2010). Job satisfaction for teachers can be defined as the attitude of the teacher towards his / her students and his / her school" or "the satisfaction or dissatisfaction of teachers from their work" (Vural, 2004, p.32). The high level of job satisfaction of the teachers affects the realization of the educational objectives positively. A school with high job satisfaction teachers is expected to provide quality education and to train successful students (Demirtaş, 2010). Indeed, findings of studies examining the relationship between teacher job satisfaction and student achievement confirm this expectation (Crawford, 2017; Secumski Kiligian, 1993; Westfall, 2012). On the other hand, teachers with low job satisfaction can develop negative attitudes towards themselves and their students, and students to develop negative attitudes towards the lesson, and also to go to work as little as possible and even think about leaving the profession (Büyükşahin Çevik, 2017; Cunningham, 2015; Jackson, 2018; McCaffery, 1976).

The individual and organizational results of job satisfaction play an important role in achieving the goals of the organization. Therefore, knowledge of factors affecting job satisfaction may reveal what should be done to increase job satisfaction. The rate of meeting these expectations, which can be varied in many areas such as wage, promotion, social security, job security, quality of business relations, are the organizational factors that constitute job satisfaction (Aşık, 2010). However, it is known that job satisfaction is related to these organizational factors as well as individual factors (age, gender, education level, locus of control, optimism, self-efficacy belief, etc.) (Aşık, 2010; Rauf, 2010; Rothmann, 2001; Shoji et al., 2016). Some organizational (nature of the work, the structure of the organization) and individual (age, gender) factors can be difficult or impossible to change. Self-efficacy of individual factors is a factor that can be changed and has a significant effect on job satisfaction.

Self-efficacy is the self-belief of a person about his capacity to perform successfully, by organizing the activities necessary to show a certain performance (Bandura, 1997). Self-efficacy is also expressed as a person's confidence in his / her performance (Açıkgöz, 1996). Self-efficacy belief affects the individual's thoughts, goals, lifestyle, efforts in the face of difficulties and products that will be the result of efforts (Bandura, 2001). If the individual who is facing any difficulty has serious concerns about his or her abilities, this individual may slow down or cease to do so to eliminate the hardship. On the

other hand, the individual who has full confidence in his / her abilities will be more determined to solve the problem in the event of difficulty and will be determined to resolve it (Hazır Bıkmaz, 2002). In this respect, the self-efficacy of the individual concerning his work will affect the actions, organizational performance, and efficiency of overcoming the problems to be encountered in the workplace.

Self-efficacy has attracted the attention of education researchers recently. Teachers' self-efficacy is defined as the belief that teachers have in their ability to have a positive impact on student learning (Ashton, 1984). Teachers who are satisfied with their jobs usually have a high degree of professional competence. Self-efficacy beliefs and job satisfaction levels of the teachers who feel qualified in terms of their knowledge of the subject matter, teaching skills, and secured about classroom management are high (Akomolafe & Ogunmakin, 2014; Wang, 2013). Teachers' judgment on their abilities and skills is shaping the quality of education. Teachers with a strong sense of self-efficacy are better planned to teach instruction, tend to show higher performance in the teaching process and are more open to new ideas, and are more willing to try new methods to better meet the needs of their students (Saraçaloğlu, Aldan, Karademir, Dinçer, & Dedeşali, 2017). Teachers with high self-efficacy believe that students can influence their success (Armor et al., 1988, as cited in Chesnut & Burley, 2015). These teachers devote more time to academic learning in the classroom and learning of students with learning difficulties and motivate the student by praising even the smallest achievements of their students (Gibson & Dembo, 1984). Teachers with high self-efficacy are more likely to have students with higher achievement scores (Allinder, 1995; Ashton, 1984; Brown, 2012; Eberle, 2011; Ross, 1992; Sheftall, 2000). On the other hand, teachers with low self-efficacy harm students' self-efficacy beliefs and cognitive development by blaming them for their failures (Gibson & Dembo, 1984).

Many studies demonstrate the relationships between self-efficacy beliefs and job satisfaction levels (Blackburn, 2008; Buluç & Demir, 2015; Canrinus, Helms Lorenz, Beijaard, Buitink, & Hofman, 2012; Caprara, Barbaranelli, Steca, & Malone, 2006; Federici & Skaalvik, 2012; Türkoğlu, Cansoy, & Parlar, 2017). It is possible to find a meta-analysis of these relations in the literature (Judge & Bono, 2001). Judge and Bono (2001) conducted a meta-analysis of the relationships between basic self-evaluation traits (self-efficacy, self-esteem, emotional stability), job satisfaction, and job performance. The study presents a limited systematic analysis of the relationship between self-efficacy beliefs and job satisfaction levels. The sample of the studies included in the meta-analysis is not composed of teachers but different organizations. The study does not provide sufficient information about the current situation since some of the meta-analysis studies belong to the old times. Besides, the study did not reveal the effect of potential moderator variables (the type of publication, study year, study location, type of school, and type of scales used in the studies) on self-efficacy and job satisfaction relationship. However, moderator variables may have some effect on this relationship:

- a) Graduate thesis studies are carried out on large samples with different characteristics compared to the papers in general. This situation may cause differences in terms of research results.
- b) The concepts of self-efficacy and job satisfaction were first put forward in the United States and the studies examining the relations between these two concepts have been carried out widely in different countries. The meanings attributed to the concepts may vary culturally and nationally. This may be reflected in the results of the scale preparation processes indirectly.
- c) Teachers begin their jobs with certain professional qualifications. Over time, these qualifications may be insufficient to raise the required human profile. Following the conditions of the day, the teacher may update his / her professional competencies, develop or acquire new qualifications. The teacher's ability to provide this professional development or not may have an effect on self-efficacy beliefs and thus job satisfaction levels.

- d) In the studies conducted to determine whether teachers' self-efficacy beliefs and job satisfaction levels differ with various variables, the type of school appears to be an important variable (Aslan & Kalkan, 2018; Bümen, 2009; Karakaya-Çiçek & Çoruk, 2017; Koruklu, Feyzioğlu, Özenoğlu Kiremit, & Aladağ, 2013; Liu, 2008). However, the effect of the school type on the relationship is unknown. Therefore, the effect of the school type on the relationship needs to be determined.

These limitations and rationales reveal the need to conduct an up-to-date and comprehensive meta-analysis study by synthesizing studies examining the relationships between teachers' self-efficacy beliefs and job satisfaction levels. A meta-analysis study on the subject is important in terms of revealing the direction and level of the relationship between self-efficacy and job satisfaction. Investigation of the effect of moderator variables on the relationship will provide important information on the field literature on whether relationship varies by depending on the type of publication, study year, study location (in or outside Turkey), type of school where the teachers work and type of scales used in the studies or if the change is provided, how this change occurs. This information can help researchers to assess what kind of studies can be carried out at individual and organizational levels to strengthen the relationship between teachers' self-efficacy beliefs and job satisfaction levels, or which moderators should be considered in future studies. This study aims to investigate the relationship between teachers' self-efficacy beliefs and job satisfaction levels with the meta-analysis method. For this purpose, the following sub-problems were sought:

1. What are the frequency and percentage distribution of the moderator variables of the studies included in the meta-analysis?
2. What is the overall effect size of the relationship between teachers' self-efficacy beliefs and job satisfaction levels?
3. In the literature, is there a significant difference between the effect sizes of studies examining teachers' self-efficacy beliefs and job satisfaction levels according to moderator variables (the type of publication, study year, study location, type of school, and type of scales used in the study)?

## Method

The meta-analysis process was formed by taking into consideration the operations to be done before the analysis of the data and the issues to be considered in the analysis of the data. (i) selection of data (studies), (ii) preparing the data for the analysis, (iii) determining the analysis model, (iv) interpreting the results of the analysis.

### *i) Selection of Data (Studies)*

In the meta-analysis, it is important to expose the criteria used in determining the studies to be included in the research in the meta-analysis protocol and to be consistent with the purpose of the research to prevent publication bias (Berman & Parker, 2002). In this research, the following criteria were taken into account in determining the studies to be included in the scope of meta-analysis:

#### *Criterion 1: Database of studies*

In line with the aim of the study, all studies that give the relationship between teachers' self-efficacy and job satisfaction perceptions were scanned in YÖK National Thesis Center, Proquest, and Google Scholar databases. The studies carried out in Turkey were searched with the keywords of "öz yeterlik" and "iş doyumu" in the YÖK National Thesis Center and Google Scholar databases. The studies conducted outside Turkey were searched with keywords of "self-efficacy" and "job satisfaction" in Proquest and Google Scholar databases. As a result of the screening, a total of 61 studies, 17 of which were conducted in Turkey and 44 of which were conducted outside of Turkey, revealed the relationship between self-efficacy and job satisfaction.

*Criterion 2: Conformity of the studies in terms of method*

In the meta-analysis studies, it was taken into consideration that empirical studies conducted in the years 2000-2018, and taken over the teachers who worked in preschool and compulsory education institutions (primary and secondary education institutions) were conducted to reach the effect size. As a result of examining the samples and methods of the studies, a total of 55 studies, 15 of which were conducted in Turkey and 40 of which were conducted outside of Turkey, were found to meet the required criteria.

*Criterion 3: Availability of statistical data of studies*

To calculate the required effect sizes in the meta-analysis study, the sample size should be given with a correlation coefficient between dependent and independent variables. Studies including sample size and t values obtained from regression analysis and which allow calculation of correlation coefficient were also included in the study. However, only studies that provide correlation coefficients or t-values of the sub-dimensions of the variables and whose general correlation coefficient cannot be calculated are not included in the study. As a result of the examination, a total of 34 studies, 13 of which were conducted in Turkey and 21 of which were conducted outside of Turkey, meet the required criteria revealed the relationship between self-efficacy and job satisfaction. However, in the study of Konan (2018), the sample was divided into two groups as private and public teachers, and different results were obtained for both sample groups. In this study, the study of Konan (2018) was evaluated as two different studies. Therefore, the number of studies with numerical data required for meta-analysis was determined to be 35.

*ii) Preparing Data for the Analysis*

To conduct a meta-analysis study, individual study weights should have a balanced effect on the overall effect size of the study, studies should not cause publication bias and effect sizes should exhibit a normal distribution. Therefore, before the meta-analysis of the studies, the creation of the coding form should be prepared, the individual effect size of each study should be calculated and studies that have a significant impact on the overall effect size, cause publication bias and adversely affect the normal distribution of data should be identified, examined and decided to be excluded from the scope of meta-analysis.

*Creation of the coding form*

The coding form developed by the researcher was used in the coding of the data obtained after the selection of the data. The coding form consists of three parts; study ID, study content, and study data. The identity of the study includes information about the author or authors, year, and type of the study. The study content section contains information on where the study was conducted, the type of school, and the type of scales used in the study. In the study data section, the numerical data required to calculate the effect size; sample size, and correlation coefficient (or t value) are given. Following the information obtained from the coding form, the moderator variables of the study were determined as follows:

- a) type of the publication
- b) study year
- c) study location
- d) type of school
- e) type of scales used in the studies

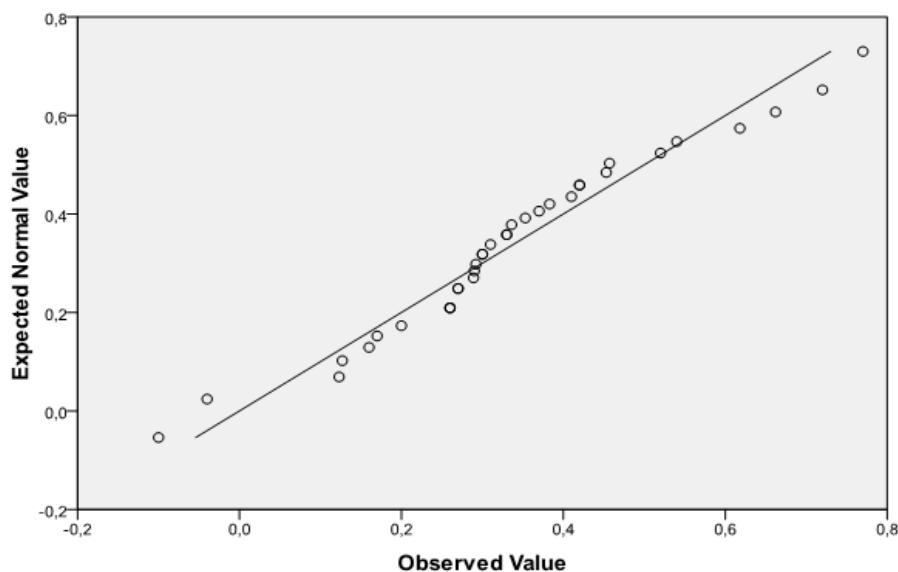
*Calculation of effect size of studies*

The effect size (Cohen, 1988) that can be calculated based on arithmetic averages, ratios and correlations can be used if the difference between two variables or two groups is quantitative (Borenstein, Hedges, Higgins, & Rohtstein, 2013). Correlations are used to calculate effect sizes for relational survey models. In this study based on a meta-analysis of relational survey models, the effect

size values and the combined effect size and publication bias of each study included in the meta-analysis were calculated using the Comprehensive Meta-analysis v2.2.064 (CMA) Statistical Package program. SPSS package program was used in the graphs of the normal distribution of the data.

#### *Examination of the distribution of the studies*

To combine the effect sizes obtained from the studies in the meta-analysis, it is necessary to determine whether they have a normal distribution for these effect sizes. Normal Q-Q graph, Shapiro-Wilk test results, skewness, and kurtosis coefficients were used to determine whether the effect sizes of the 35 studies considered to be included in the meta-analysis have a normal distribution. The normal Q-Q graph shows the relationship between the theoretical (expected) normal distribution values and the actual values observed. When the values of the theoretical distribution coincide with the actual values, it is a right that makes 45 degrees open. However, the decision as to whether the Q-Q graph is linear is subjective (Can, 2013). The distribution of the effect sizes of 35 studies is given in Graph 1.



**Graph 1.** Normal Distribution Graph of Effect Sizes

When the graph 1 is examined, it is seen that the effect sizes of 35 studies included in the study are collected along a straight line. However, to be able to decide on the normality of the distribution, the Shapiro-Wilk test results, and the skewness and kurtosis coefficients were examined. According to the Shapiro-Wilk test results, the effect size values show normal distribution ( $S-W = 138; p > .05$ ). Besides, the skewness (.46) and kurtosis (1.01) values of the effect sizes are in the normal distribution range (-1.96 and +1.96). In line with this statistical information, it is considered appropriate to combine the effect sizes of 35 studies for meta-analysis.

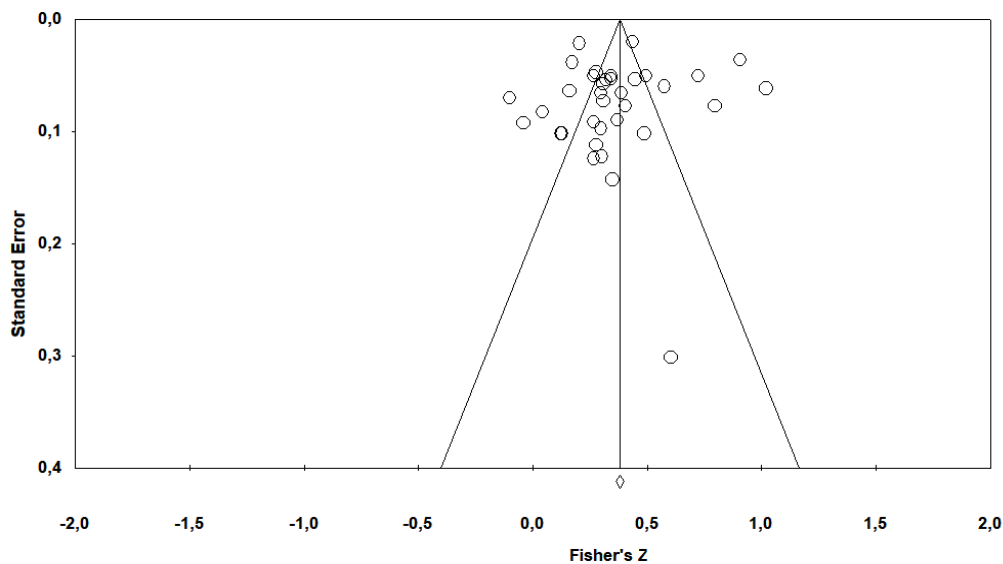
#### *Calculation of study weights*

When the numerical data of the studies are examined in detail, some of the studies on the larger sample group (Aldridge & Fraser, 2016,  $n = 789$ ; Caprara et al., 2006,  $n = 2184$ ; Skaalvik & Skaalvik, 2014,  $n = 2569$ ) or the smaller group (Güngör Seyhan, 2015,  $n = 52$ ; Rincon, 2018,  $n = 14$ ; Ruma, Houchins, Jolivette, & Benson, 2010,  $n = 70$ ) were obtained. In the meta-analysis, the studies included in the analysis should be similar. In a meta-analysis study with small sample size, if the effect sizes of the study with large sample size are significantly different from other studies or if it significantly differentiates the overall effect size, it is useful to exclude the study with a large sample size from the analysis and explain in detail (Dinçer, 2014). In order not to cause false interpretations, the weight of these studies according to the random-effects model was examined. Besides, changes in the overall impact coefficient were investigated when the studies were included in the research. It was decided that these studies should not be excluded from the study as the weights of the studies were close to each other and did not change the effect size significantly if they were included in the research.

### *Examination of publication bias of studies*

When the literature is examined, studies with statistically significant results are more likely to be published. As the statistically non-significant results tend to have a small effect size, studies with large effect size are more likely to be published than those with a small effect size (Bakioğlu & Göktaş 2018; Üstün & Eryılmaz, 2014). Since it is more preferable to include published studies in the meta-analysis, the possible biases in these studies are also reflected in the meta-analysis. This problem is generally referred to as “publication bias” (Bakioğlu & Göktaş 2018). Therefore, it should be tested whether the studies cause publication bias. In this research, publication bias was tested by funnel scatter plot, Rosenthal's Safe N Test, Begg and Mazumdar rank correlations were tested by Egger's Linear Regression method.

In the interpretation of the funnel scatter plot, the location of the individual effect sizes of the studies included in the meta-analysis is an important factor. The effect sizes of the studies are all in the funnel lines and they are observed in symmetrical form when there is no publication bias. The middle line shows the overall effect and studies are expected to focus on the overall effect of the individual effect sizes. Studies whose effect sizes are not included in the funnel may cause publication bias (Dinçer, 2014). The scattering of the effect sizes of the studies included in the scope of meta-analysis is given in Chart 2.



**Graph. 2.** Funnel Scatter Plot

As can be seen in Graph 2, the majority of the effect sizes of the studies included in the meta-analysis were collected in a funnel and symmetrically. Besides, it is seen from Graph 2 that the individual effect sizes of the studies are gathered around the middle line showing overall effect size. According to the funnel scattering graph, 35 studies included in the meta-analysis do not have publication bias. However, publication bias statistics should also be considered since the individual effect sizes of the studies are not symmetrical in the funnel. Confidence tests and results showing the bias of the studies included in the meta-analysis are given in Table 1.

**Table 1.** Confidence Tests and Results Showing the Bias of the Studies Included in the Meta-analysis

Confidence Tests	Data of Confidence Tests	
Rosenthal's Fail-Safe N	Z- value for observed studies	36.566
	the p-value for observed studies	.000
	Alpha	.050
	Tails	2
	Z for Alpha	1.960
	Number of observed studies	35
	Fail- Safe N (FSN)	2147
Begg and Mazumdar Rank Correlation	Tau	-.035
	Tau için z değeri	.298
	p-value (1 tailed)	.383
	p-value (2 tailed)	.766
Egger's Regression Intercept	Standard Error	1.511
	95% lower limit (2 tailed)	-3.521
	95 % upper limit (2 tailed)	2.627
	t-value	.296
	df	33
	p-value (1 tailed)	.385
	p-value (2 tailed)	.769

As seen in Table 1, Rosenthal's Safe N Test results reveal that the meta-analysis result is statistically significant ( $p = .000$ ). In other words, to eliminate the significance of meta-analysis results, 2147 studies with zero effect size value are needed. The fact that Kendall's Tau coefficient obtained from Begg and Mazumdar Rank Correlations is not statistically significant ( $-.035$  and  $p = .776$ ) is an indication that there is no publication bias. It can be said with 95% confidence that there is no publication bias from the result of Egger's Linear Regression method ( $p = .769 > .05$ ).

### *iii) Determining the analysis model*

In determining the model in meta-analysis studies, it can be tested whether the effect sizes are homogeneously distributed. According to the results of this test, if the effect sizes are homogeneous distribution, it is said that the fixed effects model can be used. If effect sizes do not show homogeneous distribution, the random effect model should be used (Ellis, 2010, as cited in Gözüyeşil & Dikici, 2014). In meta-analysis studies, the choice of model should be decided as "a priori" before the analysis (Başol, 2016). The studies in the current research based on social sciences, in different countries and educational levels, and the variety of patterns and scales used in the analysis show that the random-effects model for meta-analysis is more appropriate. The homogeneity test was applied to the data obtained from the studies to determine the meta-analysis model based on the distribution of effect sizes.

Q value obtained as a result of homogeneity test is statistically significant [ $Q = 656.412$ ,  $p = .000$ ]. In the  $\chi^2$  table, the 34 degrees of freedom value was found to be 48.602 at a 95% significance level. The fact that the Q statistic value ( $Q = 656.412$ ) is greater than the critical value of the  $\chi^2$  distribution with 34 degrees of freedom [ $\chi^2(.95) = 48.602$ ] and the p-value ( $p = .000$ ) less than .05 indicates that the distribution of effect sizes is heterogeneous. The distribution of effect sizes indicates that it is heterogeneous. However, in the meta-analysis studies conducted with a small number of studies, Q statistic is weak in accurately determining the heterogeneity between studies included in the meta-analysis (Huedo Medina, Sánchez Meca, Marín Martínez, & Botella, 2006). Therefore,  $I^2$  value was also examined to determine whether the heterogeneity between studies existed.  $I^2$ , which is not sensitive to the number of studies and the effect size, is a useful measure in terms of showing the true homogeneity ratio of the total change in the observed effect (Borenstein et al., 2013). As a result of the homogeneity test, the  $I^2$  value was calculated as 94.820%. Based on this value, the percentage of total variability that can be attributed to true heterogeneity or variability between studies can be expressed as 94.820%. Higgins and



Thompson's (2002)  $I^2$  values show 25% ( $I^2 = 25$ ) low, 50% ( $I^2 = 50$ ) moderate and 75% ( $I^2 = 75$ ) high heterogeneity. According to this classification, it can be said that the calculated  $I^2$  value represents 94.820% ( $I^2 = 94.820$ ) high heterogeneity. In addition, p-value ( $p = .000$ ) is less than the significance value of .05. All these values ( $Q = 656.412$ ,  $p < .05$ ,  $I^2 = 94.820$ ) indicate that the distribution of effect sizes is heterogeneous and the use of the random-effects model is more suitable for interpreting effect sizes.

#### *iv) Interpreting the results of the analysis*

In the meta-analysis studies, the correlation values are converted to "Fisher's Z" value, and the analyzes are carried out on these values. In the evaluation of the analysis findings, it is interpreted by converting to the correlation coefficient (Önder & Tulunay Ateş, 2017). In the correlation data, the correlation coefficient is used as the effect size concerning the direction of the relationship (positive or negative). If their effect sizes were between  $\pm .00$  and  $\pm .10$ ,  $\pm .10$  and  $.30$ ,  $\pm .30$  and  $\pm .50$ ,  $\pm .50$  and  $\pm .80$ ,  $\pm .80$  and above, the correlation coefficients were interpreted as a very weak effect, weak effect, medium effect, strong effect, very strong, respectively (Cohen, Manion, & Morrison, 2007).

## Results

The question of "What are the frequency and percentage distributions of the moderator variables of the studies included in the meta-analysis?" has been identified as the first sub-problem of the study. In this respect, the frequency and percentages of the studies included in the study according to the moderator variables (the type of publication, study year, study location, type of school, and type of scales used in the study) are shown in Table 2.

**Table 2.** Frequency and Percentages of Studies According to Moderator Variables

Moderator Variables		f	%
Type of publication	Paper	26	74.29
	Thesis	9	25.71
Study Year	2000	1	2.86
	2006	1	2.86
	2010	3	8.57
	2011	3	8.57
	2012	1	2.86
	2013	3	8.57
	2014	6	17.14
	2015	4	11.43
	2016	2	5.71
	2017	3	8.57
2018	8	22.86	
Study location	in Turkey	14	40
	outside of Turkey	21	60
Type of school	Pre. S.	2	5.71
	P. S.	4	11.43
	S. S.	4	11.43
	H. S.	9	25.71
	Pre. S. + P. S.	1	2.86
	P. S. + S. S.	6	17.14
	S. S. + H. S.	2	5.71
	P. S. + S. S. + H. S.	4	11.43
Pre. S. + P. S. + S. S. + H. S.	2	5.71	
Pre. S. + P. S. + S. S. + H. S. + Other Institutions	1	2.86	

**Table 2.** Continued

Moderator Variables		f	%
Self-efficacy scale	Caprara et al. (2006)	2	5.71
	Gibson and Dembo (1984)	2	5.71
	Sherer et al. (1982)	2	5.71
	Tschannen Moran and Woolfolk Hoy (2001)	13	37.14
	Other self-efficacy scales	16	45.71
Job satisfaction scale	Brayfield and Rothe (1951)	2	5.71
	Smith, Kendal, and Hulin (1969)	2	5.71
	Spector (1985)	4	11.43
	Warr, Cook, and Wall (1979)	2	5.71
	Weiss, Davis, England, and Loftquist (1967)	7	20
Other job satisfaction scales	18	51.43	

Pre. S.: Preschool, P. S: Primary School, S. S.: Secondary School, H. S.: High School

According to Table 2, 74.29% ( $f = 26$ ) and 25.71% ( $f = 9$ ) of the studies are research paper and thesis, respectively. The majority of the studies ( $f = 8$ , 22.86%) were conducted in 2018. 40% ( $f = 14$ ) and 60% ( $f = 21$ ) of the studies were conducted in Turkey and outside Turkey, respectively. The majority of the studies were conducted on a high school sample of 25.71% ( $f = 9$ ). 5.71% ( $f = 2$ ), 5.71% ( $f = 2$ ), 5.71% ( $f = 2$ ), 37.14% ( $f = 13$ ), 45.71% ( $f = 16$ ) of the self-efficacy scales used in the studies were developed by Caprara et al. (2006), Gibson and Dembo (1984), Sherer et al. (1982), Tschannen Moran and Woolfolk Hoy (2001) and other researchers, respectively. 5.71% ( $f = 2$ ), 5.71% ( $f = 2$ ), 11.43% ( $f = 4$ ), 5.71% ( $f = 2$ ), 20% ( $f = 7$ ), 51.43% ( $f = 18$ ) of the job satisfaction scales used in the studies were developed by Brayfield and Rothe (1951), Smith, Kendal, and Hulin (1969), Spector (1985), Warr et al. (1979), Weiss et al. (1967), and other researchers, respectively.

The question of “What are the overall effect size of the relationship between teachers' self-efficacy beliefs and job satisfaction levels?” is determined as the second sub-problem of the study. Accordingly, the weight, the effect size of each study included in the meta-analysis, and the overall effect size are given in Table 3.

**Table 3.** Weights of Studies, Effect Sizes and Overall Effect Size Value (Fisher's Z)

Studies	Effect Size	Lower Limit	Upper Limit	Z	p	Weights (Random Effects)
Akomolafe and Ogunmakin (2014)	.266	.167	.365	5.289	.000	3.07
Aldridge and Fraser (2016)	.908	.837	.987	25.317	.000	3.14
Briones, Taberner, and Arenas (2010)	.266	.023	.509	2.145	.032	2.50
Buluç and Demir (2015)	.494	.395	.593	9.771	.000	3.07
Burhan (2016)	.124	-.075	.323	1.218	.223	2.70
Büyükşahin Çevik (2017)	.343	.239	.447	6.459	.000	3.06
Capone and Petrillo (2018)	.576	.460	.693	9.678	.000	3.02
Caprara et al. (2006)	.203	.161	.245	9.468	.000	3.19
Capri and Güler (2018)	.277	.184	.369	5.867	.000	3.09
Demirbağ (2015)	-.100	-.238	.037	-1.437	.151	2.95
Dhinga and Boduszek (2014)	-.040	-.220	.140	-.435	.664	2.78
Didonna (2018)	.266	.086	.446	2.903	.004	2.78
Gamsız, Yazıcı, and Altun (2013)	.172	.097	.246	4.496	.000	3.13
Gilbert, Adesope, and Schroeder (2014)	.299	.108	.498	3.074	.002	2.73
Güngör Seyhan (2015)	.350	.070	.630	2.447	.014	2.33
Høigaard, Giskei, and Sundsli (2012)	.310	.167	.452	4.255	.000	2.93
Karabiyik and Korumaz (2014)	.277	.058	.496	2.476	.013	2.61
Kennedy (2014)	.369	.194	.544	4.124	.000	2.80

**Table 3.** Continued

Studies	Effect Size	Lower Limit	Upper Limit	Z	p	Weights (Random Effects)
Konan (2018)	.128	-.071	.327	1.258	.209	2.70
Konan (2018)	.488	.289	.687	4.811	.000	2.70
Kusumaninggati, Mukhtar, and Sujanto (2018)	.796	.646	.947	1.353	.000	2.90
Lent et al. (2011)	.388	.260	.517	5.916	.000	2.98
Li, Wang, Gao, and You (2017)	.448	.343	.553	8.364	.000	3.05
Moè, Pazzaglia, and Ronconi (2010)	.343	.244	.441	6.822	.000	3.07
Özçete (2018)	.042	-.120	.204	.510	.610	2.85
Rincon (2018)	.604	.013	1.195	2.004	.045	1.19
Ruma et al. (2010)	.301	.061	.540	2.462	.014	2.51
Saraçaloğlu et al. (2017)	.297	.169	.426	4.531	.000	2.98
Skaalvik and Skaalvik (2014)	.436	.397	.474	22.066	.000	3.19
Somech and Zahavy (2000)	.161	.037	.286	2.542	.011	2.99
Stephanou, Gkavras, and Doulkeridou (2013)	1.020	.900	1.141	16.610	.000	3.00
Telef (2011)	.321	.215	.426	5.962	.000	3.05
Turcan (2011)	.722	.623	.820	14.381	.000	3.07
Watts (2013)	.404	.252	.555	5.231	.000	2.89
Yıldırım (2015)	.310	.197	.422	5.388	.000	3.03
<b>Fixed Effects</b>	.380	.363	.397	42.934	.000	
<b>Random Effects</b>	.359	.278	.440	8.655	.000	

As can be seen from Table 3, the overall effect size value for the relationship between self-efficacy and job satisfaction is determined as .359 based on the random model. According to the classification of Cohen et al. (2007) is a medium effect. According to the random-effects model, the lower limit of the effect size is .278 and the upper limit is .440 in 95% confidence interval. The values of effect sizes were statistically significant ( $Z = 8.665$ ,  $p = .000$ ). According to these findings, it can be said that there is a moderate and positive relationship between teachers' self-efficacy and job satisfaction relationship mean.

The question of "In the literature, is there a significant difference between the effect sizes of studies examining teachers' self-efficacy beliefs and job satisfaction levels according to moderator variables (the type of publication, study year, study location, type of school and type of scales used in the study)" is determined as the third sub-problem of the study. In this respect, the Q-test-homogeneity test was conducted according to the moderator variables, and the results were presented as tables. Table 4 shows the results of the distribution of the effect size and homogeneity of the test related to the type of publication.

**Table 4.** Effect Size Distribution and Homogeneity Test Results of the Studies Related to The Type of Publication

Moderator Type of Publication	k	Confidence Interval %95			Homogeneity Test		
		ES	Lower Limit	Upper Limit	$Q_B$	df	p
Paper	26	.366	.272	.459	.068	1	.794
Thesis	9	.338	.154	.522			

To determine the effect of publication type on the overall effect size, the studies were divided into two different groups, including thesis and paper. Related to the type of publication; the effect size value of the paper type (.366) was found to be greater than the effect size value (.388) of the thesis type. The homogeneity test value was found as  $Q_B = .068$ . The  $Q_B$  statistic value [ $Q_B = .068$ ,  $p = .794$ ] is not significant as it is below the critical value [ $\chi^2(.95) = 3.841$ ] of the  $\chi^2$  distribution at 95% significance level with one degree of freedom. Accordingly, it can be stated that there is no significant difference between

the effect sizes of the studies included in the scope of meta-analysis related to the type of publication. Table 5 shows the distribution of the effect size and homogeneity test results related to the study year.

**Table 5.** Effect Size Distribution and Homogeneity Test Results of the Studies Related to the Study Year

Moderator Study Year	<i>k</i>	Confidence Interval %95			Homogeneity Test		
		<i>ES</i>	Lower Limit	Upper Limit	$Q_B$	<i>df</i>	<i>p</i>
2010	3	.328	.243	.413	5.681	7	.577
2011	3	.478	.218	.739			
2013	3	.531	-.007	1.069			
2014	6	.277	.143	.411			
2015	4	.261	-.010	.533			
2016	2	.687	.237	1.138			
2017	3	.367	.281	.454			
2018	8	.390	.211	.570			

To determine the effect of study year on the overall effect size, studies were divided into eight different groups, including 2010, 2011, 2013, 2014, 2015, 2016, 2017, 2018. As at least two studies are required for each group created in the calculation of the effect size, 2000, 2006, and 2012 with less than two studies has been removed. Related to the study year, the greatest effect size value (.687) was seen for 2016; the lowest effect size value (.261) was calculated for 2015. The homogeneity test was found as  $Q_B = 5.681$ . The  $Q_B$  statistic value [ $Q_B = 5.681, p = .577$ ] is not significant as it is below the critical value [ $\chi^2(.95) = 14.067$ ] of the  $\chi^2$  distribution at 95% significance level with seven degree of freedom. Accordingly, it can be stated that there is no significant difference between the effect sizes of the studies included in the scope of meta-analysis related to study year. Table 6 shows the results of the distribution of the effect size and homogeneity of the test related to the study location.

**Table 6.** Effect Size Distribution and Homogeneity Test Results of the Studies Related to The Study Location

Moderator Study Location	<i>k</i>	Confidence Interval %95			Homogeneity Test		
		<i>ES</i>	Lower Limit	Upper Limit	$Q_B$	<i>df</i>	<i>p</i>
in Turkey	14	.315	.215	.414	.921	1	.337
outside Turkey	21	.390	.273	.506			

To determine the effect of study location on the total effect size, the studies were divided into two groups as in Turkey and outside Turkey. Related to the study location, the effect size value of the studies conducted outside Turkey (.390) was found to be greater than the effect size value of the studies conducted in Turkey (.315). The homogeneity test value was found as  $Q_B = .921$ . The  $Q_B$  statistic value [ $Q_B = .921, p = .337$ ] is not significant as it is below the critical value [ $\chi^2(.95) = 3.841$ ] of the  $\chi^2$  distribution at 95% significance level with one degree of freedom. Accordingly, it can be stated that there is no significant difference between the effect sizes of the studies included in the scope of meta-analysis related to study location. Table 7 shows the distribution of the effect size and homogeneity test results related to the type of school.

**Table 7.** Effect Size Distribution and Homogeneity Test Results of the Studies Related to The Type of School

Moderator Type of School	k	Confidence Interval %95			Homogeneity Test		
		ES	Lower Limit	Upper Limit	Q <sub>B</sub>	df	p
Pre. S.	2	.280	-.161	.721	10.820	7	.147
P. S.	4	.388	-.085	.862			
S. S.	4	.169	-.030	.368			
H. S.	9	.458	.237	.680			
P. S. + S. S.	6	.467	.364	.570			
S. S. + H. S.	2	.219	-.121	.558			
P. S + S. S. + H. S.	4	.325	.259	.391			
Pre. S. + P. S. + S.S. + H. S.	2	.306	.191	.420			

To determine the effect of type of school on the overall effect size, studies were divided into eight different groups, including Pre. S., P. S., S. S., H. S., P. S. + S. S., S. S. + H. S., P. S. + S. S. + H. S. and Pre. S. + P. S. + S. S. + H. S. As at least two studies are required for each group created in the calculation of the effect size, Pre. S. + P. S. and Pre. S. + P. S. + S. S. + H. S. + Other Institutions with less than two studies has been removed. Related to type of school, the greatest effect size value (.467) was observed for P. S. + S. S.; the lowest effect size value (.169) was calculated for S. S. The homogeneity test was calculated as  $Q_B = 10.820$ . The  $Q_B$  statistic value [ $Q_B = 10.820, p = .147$ ] is not significant as it is below the critical value [ $\chi^2(.95) = 14.067$ ] of the  $\chi^2$  distribution at 95 % significance level with seven degree of freedom. Accordingly, it can be stated that there is no significant difference between the effect sizes of the studies included in the scope of meta-analysis related to the type of school. Table 8 shows the results of the distribution of the effect size and homogeneity test relate to the type of self-efficacy scale.

**Table 8.** Effect Size Distribution and Homogeneity Test Results of the Studies Related to The Type of Self-Efficacy Scale

Moderator Type of Self-Efficacy	k	Confidence Interval %95			Homogeneity Test		
		ES	Lower Limit	Upper Limit	Q <sub>B</sub>	df	p
Caprara et al. (2006)	2	.610	-.192	1.411	5.343	3	.148
Gibson and Dembo (1984)	2	.336	.241	.432			
Sherer et al. (1982)	2	.213	.121	.305			
Tschannen Moran and Woolfolk Hoy (2001)	13	.355	.237	.474			

To determine the effect of type of self-efficacy on the overall effect size, studies were divided into four different groups, including Caprara et al. (2006), Gibson and Dembo (1984), Sherer et al. (1982), Tschannen Moran and Woolfolk Hoy (2001). As at least two studies are required for each group created in the calculation of the effect size, developed scales with less than two studies has been removed. According to the type of self-efficacy scale used in the studies; the greatest effect size value (.610) was observed for the scale developed by Caprara et al. (2006); the lowest effect size value (.213) was calculated for the scale developed by Sherer et al. (1982). The homogeneity test was calculated as  $Q_B = 5.343$ . The  $Q_B$  statistic value [ $Q_B = 5.343, p = .148$ ] is not significant because the  $\chi^2$  distribution is below the critical value [ $\chi^2(.95) = 7.815$ ] with three degrees of freedom and 95% significance level. Accordingly, it can be stated that there is no significant difference between the effect sizes of the studies included in the scope of meta-analysis related to the type of self-efficacy scale used in data collection. Table 9 shows the distribution of the effect size and homogeneity test results related to the type of job satisfaction scale.

**Table 9.** Effect Size Distribution and Homogeneity Test Results of the Studies Related to The Type of Job Satisfaction Scale

Moderator Type of Job Satisfaction	<i>k</i>	Confidence Interval %95			Homogeneity Test		
		<i>ES</i>	Lower Limit	Upper Limit	<i>Q<sub>B</sub></i>	<i>df</i>	<i>p</i>
Brayfield and Rothe (1951)	2	.369	.255	.482	1.664	4	.797
Smith et al. (1969)	2	.610	-.192	1.411			
Spector (1985)	4	.236	-.062	.533			
Warr et al. (1979)	2	.440	.139	.742			
Weiss et al. (1967)	7	.333	.283	.382			

To determine the effect of type of job satisfaction on the overall effect size, studies were divided five different groups, including Brayfield and Rothe (1951), Smith et al. (1969), Spector (1985), Warr et al. (1979), and Weiss et al. (1967). As at least two studies are required for each group created in the calculation of the effect size, developed scales with less than two studies has been removed. Related to the type of job satisfaction scale used in the studies, the greatest effect size value (.610) was calculated for the scale developed by Smith et al. (1969); the lowest effect size value (.236) was observed for the scale developed by Spector (1985). The homogeneity test was calculated as  $Q_B = 1.664$ . The  $Q_B$  statistic value [ $Q_B = 1.664, p = .797$ ] is not significant because the  $\chi^2$  distribution is below the critical value [ $\chi^2 (.95) = 9.488$ ] with four degrees of freedom and 95% significance level. Accordingly, it can be stated that there is no significant difference between the effect sizes of the studies included in the scope of meta-analysis related to the type of job satisfaction scale used in data collection.

### Discussion and Conclusion

In this study, which was conducted to investigate the relationship between teachers' self-efficacy beliefs and job satisfaction levels with meta-analysis method, individual effect sizes, and overall effect size of 35 studies were calculated following the selection criteria. Besides, it was determined whether there was a significant difference between the effect sizes of the studies examining the relationships between teachers' self-efficacy beliefs and job satisfaction levels according to the moderator variables (the type of publication, study year, study location, type of school, and type of scales used in the studies).

According to the results of the Rosenthal's Safe N Test, Begg and Mazumdar Rank Correlations, and Egger Linear Regression method used to determine the validity of the research and publication bias, it was concluded that the publication bias was low. Before combining the effect sizes of the studies included in the meta-analysis, the normal distribution of the effect sizes was examined, and the homogeneity test was performed to determine which meta-analysis model should be combined with the effect sizes. As a result of the homogeneity test, the meta-analysis model of the study was determined as random effects and the effect sizes of the studies included in the meta-analysis were combined in this model and the overall effect size was calculated.

The first finding of the study was related to the frequency and percentage distributions of the moderator variables of the studies included in the meta-analysis. Studies that examined the relationship between teachers' self-efficacy beliefs and job satisfaction levels were found to be mostly in the type of paper ( $f = 26, 74.29\%$ ). It was determined that more studies were conducted in 2018 ( $f = 8, 22.86\%$ ) than other study years included in the meta-analysis. The number of studies conducted outside Turkey ( $f = 21, 60\%$ ) was observed to be higher than studies conducted in Turkey ( $f = 14, 40\%$ ). It was determined that most of the studies were performed on a high school sample ( $f = 9, 25.71\%$ ). In the studies, it was concluded that most of the researchers ( $f = 13, 37.14\%$ ) used Teacher Self-Efficacy Scale developed by Tschannen Moran and Woolfolk Hoy (2001) to measure teachers' self-efficacy beliefs and they ( $f = 7, 20\%$ ) used the Minnesota Job Satisfaction Scale developed by Weiss et al. (1967).

The second finding of the study showed that there was a moderate and positive relationship between teachers' self-efficacy beliefs and job satisfaction levels. This finding is similar to the meta-analysis findings of Judge and Bono (2001). It is known that the results of the studies not included in the meta-analysis confirm the relationship between teachers' self-efficacy beliefs and job satisfaction levels as they do not meet the selection criteria (Buluç and Demir, 2015; Kennedy, 2014; Klassen et al. 2009; Klassen and Chiu, 2010; Redfen, 2016; Türkoğlu et al., 2017; Yıldırım, 2015). Self-efficacy beliefs affect an individual's feelings, thinking style, and behaviors (Bandura, 1997). Job satisfaction, expressed as an emotional reaction to work, is expected to be closely related to the self-efficacy belief of the individual. However, the fact that the relationship between the two variables is not strong makes us think about what studies can be done to strengthen this relationship. According to Canrinus et al. (2012), self-efficacy, job satisfaction, motivation, and commitment are indicators of teachers' professional identity. The way to shape a teacher's professional identity is to influence these indicators. Teachers' classroom self-efficacy and satisfaction in the relationship with the team members play an important role in influencing these indicators. Relationship satisfaction could be strengthened by providing or enhancing a supportive environment, making sure that teachers feel that they are listened by the school board and developing a strong feeling of relatedness between team members. Strengthening these aspects will increase teachers' classroom self-efficacy as well (Asthon ve Webb, 1986, as cited in Canrinus, 2012). The nature of the relationship between teachers in the school setting determines the professional efforts and performances of teachers, and job satisfaction (Tabançalı, 2016). Supporting social friendship relations and preventing teachers from loneliness will have positive effects on performance and job satisfaction. In a school where social relations are strong, teachers can exchange ideas with their colleagues to help them develop themselves in areas where they are inadequate. In this way, teachers who have the opportunity to develop themselves professionally are likely to increase their self-efficacy beliefs.

The third finding of the study revealed that there was no significant difference between the effect sizes of the studies examining teachers' self-efficacy beliefs and job satisfaction levels according to the moderator variables (the type of publication, study year, study location, type of school, and type of scales used in the study). As any meta-analysis studies conducted in or outside Turkey on the effect of moderator variables on self-efficacy and job satisfaction relation cannot be accessed, the results of the study could not be compared with the findings in the literature. However, comparing the results of individual studies in the literature with meta-analysis results and examining the difference between effect sizes in terms of moderator variables, although not statistically significant, may clarify the issue.

Related to the type of publication of the studies, the effect size value of the paper type (.366) was found to be greater than the effect size value (.338) of the thesis type. However, this result is not statistically significant. In the meta-analysis studies, the value of  $p$  is essentially dependent on two things: the size of the effect and the size of the sample. The calculation of the large effect size for the small sample or the calculation of the small effect size for the large sample may cause the difference between the effect sizes to be significant (Coe, 2002). When the studies included in the meta-analysis are examined in terms of effect size and sample, it can be said that there is a situation in both types of publications, but these studies are not large enough to make a statistically significant difference in effect sizes.

It is important for the thesis to be new in terms of subject, or to re-examine a subject that has been studied previously by using different patterns, sampling methods, and measurement tools. In the literature, many studies are examining the relationship between teachers' self-efficacy beliefs and job satisfaction levels. Therefore, it is expected that the postgraduate theses on this subject will differ from the existing research. It is seen that the measurement tools of the postgraduate these included in the meta-analysis are examined, especially the scales that have variety in terms of job satisfaction. According to İnal (2013), the properties of the tests used in the studies are of great importance. Coe (2002) argues that the reliability of the measurement tool is affected by the effect size and that almost always the instrument containing more items will be more reliable. If two scales whose scores were

converted into a percentage, the standard deviation of the percentages of the scale containing more items would be lower than the scale containing the fewer items. Therefore, although the actual effect is the same, the calculated effect size will be different. Coe (2002) also stated that in the meta-analysis studies based on correlation, correction of the correlation (such as rounding to the desired decimal place) affects the effect size. The differences in the number of items used in the studies and the reliability of the measurement tools used in the studies may have caused significant differences between the effect sizes of the studies according to the type of measurement tool. Although the difference in the number of items and reliability of the measurement tools used in the studies caused differences between the effect sizes of the studies according to the type of measurement tool, this difference was not statistically significant. The same situation may have been effective on the difference between the effect sizes compared to the year of studies. Related to the year of studies, the greatest effect size value (.687) for 2016 and the lowest effect size value (.261) for 2015 were seen. Although it is not statistically significant, this difference between the effect sizes of the studies on the subject in successive years is remarkable. A more detailed examination of the characteristics of the measurement instruments of the studies carried out in these years may reveal the reasons behind the emergence of this result.

Related to study location, the effect size of the studies conducted outside Turkey (.390) was found to be larger than the effect sizes of the studies conducted in Turkey (.315). To interpret this finding of the research, it may be useful to refer to factors that might affect the teachers' self-efficacy beliefs and job satisfaction levels in Turkey. Teachers who start working with specific qualifications may need to update their professional competences or develop new qualifications following the conditions of the day. There is no system in Turkey to determine how effective teachers' professional competences are to train the human profile needed. Teachers' competencies are being developed through in-service training. Not all teachers benefit from in-service training as well as the effectiveness of in-service training are arguable. Studies show that there are questions about the prevalence and effectiveness of in-service training being implemented and that the training is insufficient to achieve targeted change (Demirtaş, 2008; Öztürk, 2003; Yaylan and Sayın, 2006). In-service training programs have some problems in terms of planning, content, and evaluation (Demirtaş, 2008). In the in-service training, only theoretical knowledge is insufficient to provide new knowledge to teachers (Baykan and Oktay, 2016). The results of a survey conducted by the Ministry of Education in 2006 pointed out that there were problems in the effectiveness of in-service training. In this study, it was determined that 77% of the school administrators and 36.5% of the teachers only participated in the in-service training or not at all. Again from this research, it was determined that subjects considered important by the instructor were not focused while determining their educational needs, and the evaluation of the programs was not done enough; therefore, it was concluded that the feedback that could be used in the development of the programs were not obtained sufficiently (Yayla and Sayın, 2006). As a result of this situation, teachers can have problems updating and developing their current professional competencies, and this may reflect on their self-efficacy beliefs.

There is a consistent relationship between the level of the dignity of the profession and job satisfaction. It is seen that the job satisfaction of the employees who are perceived as more respectable in the social terms is higher (Davis, 1988, p.100). In society, three important factors reduce or raise the status of occupations. These are the need for that profession in society, the high standards of living provided to the owner of this profession, and the respect for the profession (Gökçe, 1984, p.86). Although the status of the teaching profession varies according to societies, it used to have a high dignity in all societies in the past (Tezcan, 1996, p. 264). But in literature, recent studies show that there is a decline in the status of the teaching profession in Turkey (Aydın, Demir and Erdemli, 2015; Gök, 2003; Ozankaya, 2002; Özpolat, 2002; Ünsal and Bağçeci, 2016). The high number of prospective teachers, the lack of criteria for entry to teacher training departments, the lack of successful education of teachers, the lack of undergraduate education, the failure to understand the value of the profession, the failure of the teachers to follow the professional development, the lack of performance, the lack of sufficient care for the profession are evaluated as the reasons that lower the status of the teaching



profession (Ünsal, 2018). The fall in the status of the teaching profession based on these reasons may have influenced teachers' job satisfaction levels.

Related to the type of school where the study was conducted, the greatest effect size value (.467) was calculated for primary school + secondary school and the lowest effect size value (.169) was calculated for secondary school. Besides, it was determined that the effect size (.388) calculated for primary school is higher than that of secondary school. In Turkey, the result of raising compulsory education from 8 to 12 years and grading the education system as 4 + 4 + 4, primary education schools were separated into primary school and secondary school. Conducting some of the studies within the scope of the research before this period may make it difficult to compare the effect sizes accurately. On the hand, the results of the studies on the subject in primary schools show that both the self-efficacy beliefs and the job satisfaction levels of the primary school teachers are higher than the branch teachers (Benzer, 2011; Çimen, 2007; Gençtürk, 2008; Telef, 2011; Turcan, 2011; Ültanır, 2002). The developmental characteristics of the students, the intensity and duration of the relationship with the student may have influenced the teachers' self-efficacy beliefs, and job satisfaction levels. In terms of the number of courses and the school year, classroom teachers are more associated with their students than the branch teachers. This association enables more intense communication between the teacher and the student, allowing the teacher to better observe his / her student and to get to know him/her closely. The teacher who knows his students closely can control the class in every way. The teacher, who controls over his / her class, may feel more sufficient in general (Gençtürk and Memiş, 2010). Classroom teachers, who have the opportunity to observe the development of their students, are more aware of how the students are motivated and how they will be involved in the lesson because they know the personal characteristics of each student more than those of the branch teachers (Çimen, 2007). The fact that classroom teachers have the opportunity to observe the development of their students for five years and to see the developments in the more concrete may have contributed to their higher self-efficacy and job satisfaction (Telef, 2011).

Related to the type of self-efficacy scale used in the studies, the greatest effect size value (.610) was calculated for the scale developed by Caprara et al. (2006); the lowest effect size value (.213) was calculated for the scale developed by Sherer et al. (1982). During this period, the qualifications that individuals should have differed. Naturally, inevitably, the teachers who have an important role in gaining these qualities gained new skills and competences. The development of self-efficacy scales based on relatively more recent competencies may have caused differences which are not significant in effect sizes.

Related to the type of job satisfaction scale used in the studies, the greatest effect size value according to the type of job satisfaction scale used in the studies (.610) was calculated for the scale developed by Smith et al. (1969); the lowest effect size value (.236) was calculated for the scale developed by Spector (1985). Most job satisfaction scales have been developed to assess different aspects of a job. The most commonly used job satisfaction scales measure employee satisfaction through factors such as wages, jobs, audits, promotions, colleagues, awards. Because each job has its characteristics and it is difficult to measure satisfaction with a general measurement tool (Giraldo O'Mear, MarinGarcia, Martinez Gomez, 2014). When the most frequently used scales in educational research are analyzed within the scope of meta-analysis, it is seen that these scales are not developed to measure the job satisfaction level of teachers. The development of job satisfaction scales following the characteristics of the teaching profession may have caused differences which are not significant in effect sizes.

This study has some limitations. In the studies conducted on the subject, the fact that the relationship coefficient is given based on dimensions rather than the overall scale has limited the number of studies included in the meta-analysis. Since at least two studies are required for each class formed in the calculation of impact size, 2000, 2006, and 2012-year classes with less than two studies were excluded from the analysis. However, since some years were not conducted following the selection criteria, the effect sizes of some years could not be calculated. The fact that studies were not conducted on a single school type or that there were less than two studies in some school types led us not to

determine whether the effect sizes showed differences according to education levels. The classification of scale types according to the researchers who developed the scale provided information about the countries where the scales were developed. When the countries in which the scales were developed were examined, it was seen that the majority of both self-efficacy and job satisfaction scales were developed in America. This has limited the comparison of research results in a cultural context. Again, the fact that the majority of the scales used in studies in Turkey are adapted or that the number of scales developed is not enough for meta-analysis has limited the comparison of scales in a cultural context. Although the study indicates the relationship between self-efficacy and job satisfaction, it does not reveal which self-efficacy dimension is more effective on job satisfaction. Despite these limitations, the study provides new evidence for the relationship between teachers' self-efficacy beliefs and job satisfaction levels. It was found that there was a moderate and positive relationship between teachers' self-efficacy beliefs and job satisfaction levels, and this relationship was not significantly different according to the type of publication, study year, study location, type of school, and type of scales used in the studies. The meta-analysis of the relationships between the sub-dimensions of self-efficacy and job satisfaction may provide more information on this topic. The effect of the moderator variables such as gender, seniority, branch, etc. on the relationship between self-efficacy and job satisfaction are not yet known. Future studies or meta-analysis studies that focus on the relevant limitations can make a significant contribution to the literature. The fact that the researchers include statistical information obtained from the overall scale in the studies, the use of the current scale compatible with the cultural context may provide us with more detailed and new information about the relationship between teachers' self-efficacy beliefs and job satisfaction levels.

## References

### \*Studies Included in the Meta-Analysis

- Açıköz, K. Ü. (1996). *Etkili öğrenme ve öğretme*. İzmir: Kanyılmaz Matbaası.
- \*Akomolafe, M. J., & Ogunmakin, A. O. (2014). Job satisfaction among secondary school teachers: Emotional intelligence, occupational stress and self-efficacy as predictors. *Journal of Educational and Social Research*, 4(3), 487-498.
- Akomolafe M. J., & Olatomide, O. O. (2013). Job satisfaction and emotional intelligence as predictors of organizational commitment of secondary school teachers. *Ife Psychologia*, 21(2), 65-74.
- \*Aldridge, J. M., & Fraser, B. J. (2016). Teachers' views of their school climate and its relationship with teacher self-efficacy and job satisfaction. *Learning Environments Research*, 19(2), 291-307.
- Allinder, R. M. (1995). An examination of the relationship between teacher efficacy and curriculum-based measurement and student achievement. *Remedial and Special Education*, 16, 247-254.
- Ashton, P. T. (1984). Teacher efficacy: A motivational paradigm for effective teacher education. *Journal of Teacher Education*, 35(5), 28-32.
- Aslan, M., & Kalkan, H. (2018). Öğretmenlerin öz yeterlik algılarının analizi Bingöl Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 8(16), 477-493.
- Aşık, N. A. (2010). Çalışanların iş doyumunu etkileyen bireysel ve örgütsel faktörler ile sonuçlarına ilişkin kavramsal bir değerlendirme. *Türk İdare Dergisi*, 467, 31-57.
- Aydın, İ., Demir, T., G., & Erdemli, O. (2015). Teacher's views regarding the social status of the teaching profession. *Anthropologist*, 22(2), 146-156.
- Bakioğlu, A., & Göktaş, E. (2018). Bir eğitim politikası belirleme yöntemi: Meta analiz. *Medeniyet Eğitim Araştırmaları Dergisi*, 1-1(2), 35-54.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York, NY: Freeman.
- Bandura, A. (2001). A cognitive theory: An agentic perspective. *Annual Review of Psychology*, 52, 1-26.
- Başol, G. (2016). "Türkiye örneğinde meta analiz çalışmalarının içerik analizi ve metodolojik değerlendirilmesi" konusunda Dinçer (2016) "Editöre Mektup"a cevaben. *International Journal of Human Sciences*, 13(1), 1395-1401.
- Baykan, P., & Oktay, M. (2016). İhtiyaca dayalı hizmet-içi eğitim etkinliği uygulaması. *Atatürk Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 20(1), 169-183.
- Benzer, F. (2011). *İlköğretim ve ortaöğretim kurumlarında görev yapan öğretmenlerin öz yeterlik algılarının analizi* (Unpublished master's thesis). Selçuk University, Konya.
- Berman, N. G., & Parker, R. A. (2002). Meta-analysis: Neither quick nor easy. *BMC Medical Research Methodology*, 2, 1-9.
- Blackburn, J. J. (2008). Assessing teacher self-efficacy and job satisfaction of early career agriculture teachers in Kentucky. *Journal of Agricultural Education*, 49(3), 1-11.
- Borenstein, M., Hedges, L. V., Higgins, J. P. T., & Rohtstein, H. R. (2013). *Meta-analize giriş* (S. Dinçer, Trans.). Ankara: Anı Yayıncılık.
- Brayfield, A. H., & Rothe, H. F. (1951). An index of job satisfaction. *The Journal of Applied Psychology*, 35, 307-311.
- \*Briones, E., Tabernero, C., & Arenas, A. (2010). Job satisfaction of secondary school teachers: Effect of demographic and psycho-social factors. *Revista de Psicología del Trabajo y de las Organizaciones*, 26(2), 115-122.
- Brown, T. J. (2012). *Effects of teacher efficacy on student academic and social emotional achievement* (Unpublished doctoral dissertation). Walden University, Minneapolis.
- \*Buluç, B., & Demir, S. (2015). İlk ve ortaokul öğretmenlerinin öz-yeterlik algıları ile iş doyumları arasındaki ilişki. *Ahi Evran Üniversitesi Kırşehir Eğitim Fakültesi Dergisi*, 16(1), 289-308.

- \*Burhan, T. (2016). *Devlete bağlı anaokulu ile özel anaokulunda çalışan öğretmenlerin öz yeterlik inancı ve iş doyumunu düzeylerinin incelenmesi* (Unpublished master's thesis). Beykent University, İstanbul.
- Bümen, N. (2009, October). *İlk ve ortaöğretim öğretmenlerinin öz yeterlik inançlarının incelenmesi: İzmir ili örneği*. Paper presented at 18. Ulusal Eğitim Bilimleri Kurultayı, Ege Üniversitesi, İzmir.
- \*Büyüksahin Çevik, G. (2017). The roles of life satisfaction, teaching efficacy, and self-esteem in predicting teachers' job satisfaction. *Universal Journal of Educational Research*, 5(3), 338-346.
- Can, A. (2013). *SPSS ile bilimsel araştırma sürecinde nicel veri analizi*. Ankara: Pegem Yayıncılık.
- Canrinus, E. T., Helms Lorenz, M., Beijaard, D., Buitink, J., & Hofman, A. (2012). Self-efficacy, job satisfaction, motivation and commitment: Exploring the relationships between indicators of teachers' professional identity. *European Journal of Psychology of Education*, 27, 115-132.
- \*Capone, V., & Petrillo, G. (2018). Mental health in teachers: Relationships with job satisfaction, efficacy beliefs, burnout and depression. *Current Psychology*, 1-10. doi:10.1007/s12144-018-9878-7
- \*Caprara, G. V., Barbaranelli, C., Steca, P., & Malone, P. (2006). Teachers' self-efficacy beliefs as determinants of job satisfaction and students' academic achievement: A study at the school level. *Journal of School Psychology*, 44(6), 473-490.
- \*Capri, B., & Güler, M. (2018). Evaluation of burnout levels in teachers regarding socio-demographic variables, job satisfaction and general self-efficacy. *Eurasian Journal of Educational Research*, 74, 123-144.
- Chesnut, S. R., & Burley, H. (2015). Self-efficacy as a predictor of commitment to the teaching profession: A meta-analysis. *Educational Research Review*, 15, 1-16.
- Coe, R. (2002, September). *It's the effect size, stupid. What effect size is and why it is important*. Paper presented at Annual Conference of the British Educational Research Association, University of Exeter, England.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. US: Lawrence, Erlbaum.
- Cohen, L., Manion, L., & Morrison, K. (2007). *Research methods in education*. London: Routledge-Falmer.
- Crawford, J. D. (2017). *Teacher job satisfaction as related to student performance on state-mandated testing* (Unpublished doctoral dissertation). Lindenwood University, Missouri.
- Cunningham, S. L. (2015). *Quantitative analysis of the factors associated with teacher attitudes and perceptions towards job satisfaction* (Unpublished doctoral dissertation). Seton Hall University, South Orange.
- Çetinkanat, C. (2000). *Örgütlerde güdüleme ve iş doyumunu*. Ankara: Anı Yayıncılık.
- Çimen, S. (2007). *İlköğretim öğretmenlerinin tükenmişlik yaşantıları ve yeterlik algıları* (Unpublished master's thesis). Kocaeli University, Kocaeli.
- Davis, K. (1988). *İşletmede insan davranışı* (K. Tosun, Trans.), İstanbul: İ.Ü. İşletme Fakültesi Yayınları.
- \*Demirbağ, S. (2015). Assessing teacher self-efficacy and job satisfaction: Middle school teachers. *Journal of Educational and Instructional Studies in the World*, 5(3), 35-43.
- Demirtaş, T. Z. (2008). *İlköğretim okulları öğretmenlerinin hizmetiçi eğitim ihtiyaçları ile kurum içi iletişim algıları arasındaki ilişkinin değerlendirmesi* (Unpublished master's thesis). Yeditepe University, İstanbul.
- Demirtaş, Z. (2010). Teachers' job satisfaction levels. *Procedia Social and Behavioral Sciences*, 9, 1069-1073.
- \*Dhinga, K., & Boduszek, D. (2014). Teachers' self-efficacy beliefs, self-esteem, and job stress as determinants of job satisfaction. *International Journal of Educational Management*, 28(4), 365-378.
- \*Didonna, T. (2018). *Job satisfaction, morale, and experience: A predictive study of teachers' self-efficacy* (Unpublished doctoral dissertation). Capella University, Minneapolis.
- Dinçer, S. (2014). *Eğitim bilimlerinde uygulamalı meta analiz*. Ankara: PegemA Yayıncılık.

- Eberle, W. M. (2011). *Teacher self-efficacy and student achievement as measured by North Carolina reading and math end-of-grade tests* (Unpublished doctoral dissertation). East Tennessee State University, Johnson City.
- Eğimli, A. T. (2009). Çalışanlarda iş doyumunu: Kamu ve özel sektör çalışanlarının iş doyumuna yönelik bir araştırma. *Atatürk Üniversitesi İktisadi ve İdari Bilimler Dergisi*, 23(3), 35-51.
- Federici, R. A., & Skaalvik, E. M. (2012). Principal self-efficacy: Relations with burnout, job satisfaction and motivation to quit. *Social Psychology of Education*, 15, 295-320.
- Feldman, C. D., & Arnold, J. H. (1983). *Managing individual and group behavior in organization*. Auckland: Mc.Graw-Hill International Book Company.
- \*Gamsız, Ş., Yazıcı, H., & Altun, F. (2013). Öğretmenlerde a tipi kişilik, stres kaynakları, öz yeterlik ve iş doyumunu. *Turkish Studies International Periodical for The Languages, Literature and History of Turkish or Turkic*, 8(8), 1475-1488.
- Gedik, A., & Üstüner, M. (2017). Eğitim örgütlerinde örgütsel bağlılık ve iş doyumunu ilişkisi: Bir meta analiz çalışması. *E-Uluslararası Eğitim Araştırmaları Dergisi*, 8(2), 41-57.
- Gençtürk, A. (2008). *İlköğretim okulu öğretmenlerinin öz-yeterlik algıları ve iş doyumlarının çeşitli değişkenler açısından incelenmesi* (Unpublished master's thesis). Zonguldak Karaelmas University, Zonguldak.
- Gençtürk, A., & Memiş, A. (2010). An investigation of primary school teachers' teacher efficacy and job satisfaction in terms of demographic factors. *Elementary Education Online*, 9(3), 1037-1054.
- Ghazzawi, I., & Smith Y. (2009). Crafting the whole employee: Job satisfaction, job commitment, and faith-a new conceptual framework and research agenda. *The Business Review*, 12(2), 300-309.
- Ghazzawi, I. A. (2008). Job satisfaction antecedents and consequences: A new conceptual framework and research agenda. *The Business Review*, 11(2), 1-10.
- Gibson, S., & Dembo, M. H. (1984). Teacher efficacy: A construct validation. *Journal of Educational Psychology*, 76(4), 569-582.
- \*Gilbert, R. B., Adesope, O. O., & Schroeder, N. L. (2014). Efficacy beliefs, job satisfaction, stress and their influence on the occupational commitment of English-medium content teachers in the Dominican Republic. *Educational Psychology*, 34(7), 876-899.
- Giraldo O'Mear, M., Marin Garcia, J. A., & Martinez Gomez, M. (2014). Validation of the jds satisfaction scales applied to educational university environments *Journal of Industrial Engineering and Management*, 7(1), 72-99.
- Gök, F. (2003). Hizmet öncesi ve hizmet içi öğretmen yetiştirme. In *Öğretmen yetiştirme ve istihdamı sempozyumu* (pp. 9-22). Ankara: Eğitim-Sen Yayınları.
- Gökçe, B. (1984) *Orta öğretim gençliğinin beklenti ve sorunları*. Ankara: T.C. Millî Eğitim ve Spor Bakanlığı, Gençlik Hizmetleri Genel Müdürlüğü Yayını.
- Gözüyeşil, E., & Dikici, A. (2014). Beyin temelli öğrenmenin akademik başarıya etkisi: Bir meta-analiz çalışması. *Kuram ve Uygulamada Eğitim Bilimleri*, 14(2), 629-648.
- Gümüş, S. (2017). *Hizmet pazarlaması: Sağlıkta güncel konular araştırma inceleme ve deyimler*. Ankara: Seçkin Yayıncılık.
- Günbayı, İ., & Tokel, A. (2012). İlköğretim okulu öğretmenlerinin iş doyumunu ve iş stresi düzeylerinin karşılaştırmalı analizi. *ODÜ Sosyal Bilimler Enstitüsü Sosyal Bilimler Araştırmaları Dergisi*, 5(3), 77-95.
- \*Güngör Seyhan, H. (2015). Kimya öğretmenlerinin iş doyumları, öz-yeterlik alguları, örgütsel bağlılıkları ve iş streslerinin çeşitli değişkenler açısından incelenmesi. *Turkish Journal of Education*, 4(2), 41-60.
- Hazır Bıkmaz, F. (2002). Fen öğretiminde öz yeterlik ölçeği. *Eğitim Bilimleri ve Uygulama*, 1(2), 197-210.

- Higgins, J. P. T., & Thompson, S. G. (2002). Quantifying heterogeneity in a meta-analysis. *Statistics in Medicine*, 21, 1539-1558.
- \*Høigaard, R., Giskei R., & Sundsli, K. (2012). Newly qualified teachers' work engagement and teacher efficacy influences on job satisfaction, burnout, and the intention to quit. *European Journal of Teacher Education*, 35(3), 347-357.
- Huedo Medina, T. B., Sánchez Meca, J., Marín Martínez, F., & Botella, J. (2006). Assessing heterogeneity in meta-analysis: Q statistic or I<sup>2</sup> index?. *Psychological Methods*, 11(2), 193-206.
- İnal, P. (2013). *Araştırmaya dayalı öğrenmenin madde konusunda ilköğretim öğrencilerinin akademik başarıları, kavramsal anlamaları, tutumları, bilimsel süreç ve iletişim becerileri üzerine etkisi* (Unpublished doctoral dissertation). Marmara University, İstanbul.
- Jackson, M. M. (2018). *Examining the relationship between school climate and teacher absenteeism, teacher job satisfaction, and teachers' intentions to remain* (Unpublished doctoral dissertation). Trevecca Nazarene University, Nashville.
- Judge, T. A., & Bono, J. E. (2001). Relationship of core self-evaluations traits-self-esteem, generalized self-efficacy, locus of control, and emotional stability-with job satisfaction and job performance: A meta-analysis. *Journal of Applied Psychology*, 86(1), 80-92.
- \*Karabıyık, B., & Korumaz, M. (2014). Relationship between teachers' self-efficacy perceptions and job satisfaction level. *Procedia-Social and Behavioral Sciences*, 116, 826-830.
- Karakaya-Çiçek, H., & Çoruk, A. (2017). İlköğretim okullarında görev yapan öğretmenlerin okul yaşam kalitesi algıları ile iş doyumunu algıları arasındaki ilişki. *Dicle Üniversitesi Ziya Gökalp Eğitim Fakültesi Dergisi*, 31, 750-761.
- \*Kennedy, B. M. (2014). *Teaching self-efficacy, job satisfaction and burnout in a public school setting* (Unpublished doctoral dissertation). Barry University, USA.
- Keser, A. (2005). İş doyumunu ve yaşam doyumunu ilişkisi: Otomotiv sektöründe bir uygulama. *Çalışma ve Toplum Dergisi*, 7, 77-95.
- Klassen, R. M., & Chiu, M. M. (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.
- Klassen, R. M., Bong, M., Usher, E. L., Chong, W. H., Huan, V. S., Wong, I. Y. F., ... Tasos, G. (2009). Exploring the validity of a teachers' self-efficacy scale in five countries. *Contemporary Educational Psychology*, 34, 67-76.
- \*Konan, E. (2018). *Kamu ve özel eğitim kurumlarında çalışan ortaöğretim fen bilimleri öğretmenlerinin iş doyumları ve öz yeterlik düzeylerinin çeşitli değişkenler açısından incelenmesi* (Unpublished master's thesis). Marmara University, İstanbul.
- Koruklu, N., Feyzioğlu, B., Özenoğlu Kiremit, H., & Aladağ, E. (2013). Öğretmenlerin iş doyumunu düzeylerinin bazı değişkenlere göre incelenmesi. *Mehmet Akif Ersoy Üniversitesi Eğitim Fakültesi Dergisi*, 13(25), 119-137.
- Kristof, A. L. (1996). Person-organization fit: An integrative review of its conceptualizations, measurement, and implications. *Personnel Psychology*, 49(1), 1-49.
- \*Kusumaningati, G., Mukhtar, M., & Sujanto, S. (2018). The influence of self efficacy, job satisfaction and organizational commitment toward organizational citizenship behavior (ocb) of teachers of private vocational schools in South Jakarta. *International Journal of Scientific Research and Management*, 6(6), 406-414.
- \*Lent, R. W., Nota, L., Soresi, S., Ginevra, M. C., Duffy, R. D., & Brown, S. D. (2011). Predicting the job and life satisfaction of Italian teachers: Test of a social cognitive model. *Journal of Vocational Behavior*, 79, 91-97.
- \*Li, M., Wang, Z., Gao, J., & You, X. (2017). Proactive personality and job satisfaction: The mediating effects of self-efficacy and work engagement in teachers. *Current Psychology*, 36, 48-55.

- Liu, X. S. (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.
- McCaffery, D. (1976). *The relationship of teacher satisfaction to student attitudes in compulsory physical education classes* (Unpublished master's thesis). The University of Alberta Edmonton, Alberta.
- \*Moè, A., Pazzaglia, F., & Ronconi, L. (2010). When being able is not enough. The combined value of positive affect and self-efficacy for job satisfaction in teaching. *Teaching and Teacher Education*, 26(5), 1145-1153.
- Oyewobi, L. O., Suleiman, B., & Muhammad-Jamil, A. (2012). Job satisfaction and job commitment: A study of quantity surveyors in Nigerian public service. *International Journal of Business and Management*, 7(5), 179-192.
- Ozankaya, Ö. (2002). Çağdaş toplumlarda öğretmenin yeri ve konumu. *İnönü Üniversitesi Eğitim Fakültesi Dergisi*, 3(3), 63-80.
- Önder, E., & Tulunay Ateş, Ö. (2017). Öğretmenlerin örgütsel adalet algısı ve örgütsel bağlılıkları arasındaki ilişkiler: Türkiye'de yapılmış çalışmaların meta analizi. *Turkish Studies, International Periodical for the Languages, Literature and History of Turkish or Turkic*, 12(25), 589-608.
- \*Özçete, G. (2018). *Beden eğitimi ve spor öğretmenlerinin mesleklerine ilişkin öz yeterlik düzeylerinin incelenmesi ve öğretmenlerin iş doyum analizi (Niğde ili örneği)* (Unpublished master's thesis). Niğde Ömer Halisdemir University, Niğde.
- Özpolat, A. (2002). *Sosyolojik açıdan öğretmenlik mesleği ve öğretmenlerin toplumdaki yeri* (Unpublished doctoral dissertation). İstanbul University, İstanbul.
- Öztürk, E. (2003). *An assessment of high school biology curriculum implementation* (Unpublished doctoral dissertation). Middle East Technical University, Ankara.
- Rauf, K. (2010). The relationship of optimism and job satisfaction in business schools. *Pakistan Business Review*, 294-311.
- Redfern, M. (2016). *A quantitative study of the effect of the implementation of common core state standards on teacher self-efficacy, stress and job satisfaction* (Unpublished doctoral dissertation). Claremont Graduate University, Claremont.
- \*Rincon, M. F. (2018). *Early childhood teachers' perception of their principal's leadership and the relationship on their own job satisfaction and self-efficacy* (Unpublished master's thesis). Texas Rio Grande Valley University, Brownsville.
- Robbins, S. P., & Judge, T. A. (2012). *Örgütsel davranış* (14<sup>th</sup> ed., İ. Erdem, Ed. & Trans.). Ankara: NobelA.
- Ross, J. A. (1992). Teacher efficacy and effects of coaching on student achievement. *Canadian Journal of Education*, 17, 51-65.
- Rothmann, S. (2001). Sense of coherence, locus of control, self-efficacy and job satisfaction. *SAJEMS NS*, 4(1), 41-64.
- \*Ruma, K. V., Houchins, D., Jolivet, K., & Benson, G. (2010). Efficacy beliefs of special educators: The relationships among collective efficacy, teacher self-efficacy, and job satisfaction. *Teacher Education and Special Education*, 33(3), 225-233.
- \*Saraçaloğlu, A. S., Aldan Karademir, Ç., Dinçer, B., & Dedeşali, N.C., (2017). Öğretmenlerin öğretme stilleri, öz yeterlik ve iş doyumlarının belirlenmesi. *Education Sciences (NWSAES)*, 12(1), 58-85.
- Secumski Killigian, E. A. (1993). *The relationship between elementary school teachers's job satisfaction, principal's managerial styles and student achievement* (Unpublished doctoral dissertation). Wayne State University, Detroit, Michigan.
- Sheftall, M. S. (2000). *Teacher expectations, teacher efficacy, and student achievement* (Unpublished doctoral dissertation). Graduate Faculty of the University of Georgia, Athens, Georgia.

- Sherer, M., Maddux J. E., Mercandante, B., Prentice-Dunn, S., Jacobs, B., & Rogers, R. W. (1982). The self-efficacy scale: Construction and validation. *Psychological Reports*, 51, 663-671.
- Shoji, K., Cieslak, R., Smoktunowicz, E. Rogala, A., Benight, C. C., & Luszczynska, A. (2016). Associations between job burnout and self-efficacy: A meta-analysis, *Anxiety, Stress, & Coping*, 29(4), 367-386.
- \*Skaalvik, E. M., & Skaalvik, S. (2014). Teacher self-efficacy and perceived autonomy: Relations with teacher engagement, job satisfaction, and emotional exhaustion. *Psychological Reports*, 114(1), 68-77.
- Smith, P, Kendal, L., & Hulin, C. (1969). *The measurement of satisfaction, work, and retirement: A strategy for the study of attitude*. Chicago: Rand McNally.
- \*Somech, A., & Zahavy, A. D. (2000). Understanding extra-role behavior in schools: The relationships between job satisfaction, sense of efficacy, and teachers' extra-role behavior. *Teaching and Teacher Education*, 16, 649-659.
- Spector, P. E. (1985). Measurement of human service staff satisfaction: Development of the job satisfaction survey. *American Journal of Community Psychology*, 13, 693-713.
- \*Stephanou, G., Gkavras, G., & Doulkeridou, M. (2013). The role of teachers' self- and collective-efficacy beliefs on their job satisfaction and experienced emotions in school. *Psychology*, 4(3A), 268-278.
- Tabancalı, E. (2016). The relationship between teachers' job satisfaction and loneliness at the workplace. *Eurasian Journal of Educational Research*, 66, 263-280.
- \*Telef, B. B. (2011). The study of teachers' self-efficacy, job satisfaction, life satisfaction and burnout. *Elementary Education Online*, 10(1), 91-108.
- Telman, N., & Ünsal, P. (2004). *Çalışan memnuniyeti*. İstanbul: Epsilon Yayınları.
- Tezcan, M. (1996). *Eğitim sosyolojisi*, Ankara: Feryal Matbaası.
- Tschannen Moran, M., & Woolfolk Hoy, A. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education*, 17, 783-805.
- \*Turcan, G. (2011). *İlköğretim okulu öğretmenlerinin öz yeterlik algıları ile iş doyumları arasındaki ilişkinin incelenmesi* (Unpublished master's thesis). Selçuk University, Konya.
- Türk, M. S. (2007). *Örgüt kültürü ve iş tatmini*. Ankara: Gazi Kitabevi.
- Türkoğlu, M. E., Cansoy, R., & Parlar, H. (2017). Examining relationship between teachers' self-efficacy and job satisfaction. *Universal Journal of Educational Research*, 5(5), 765-772.
- Ültanır, E. (2002). Öğretmenlerin mesleki yeterliliklerinin incelenmesi: Mesleki doyum ile mesleki yeterlilik arasındaki ilişki. *Abant İzzet Baysal Sosyal Bilimler Enstitüsü Dergisi*, 4, 160-174.
- Ünsal, S. (2018). Türkiye'de öğretmenlik mesleğinin statüsüne ilişkin bir pareto analizi. *Özgün Araştırma*, 8(2), 111-130.
- Ünsal, S., & Bağçeci, B. (2016). Öğretmenlerin mesleki imajlarına ilişkin görüşleri ve mesleki imaja etki eden faktörler. *Journal of Human Sciences*, 13(3), 3905-3926.
- Üstün, U., & Eryılmaz, A. (2014). Etkili araştırma sentezleri yapabilmek için bir araştırma yöntemi: Meta-analiz. *Eğitim ve Bilim*, 39(174), 1-32.
- Verquer, M. L., Beehr, T. A., & Wagner, S. H. (2003). A meta-analysis of relations between person-organization fit and work attitudes. *Journal of Vocational Behavior*, 63(3), 473-489.
- Vural, B. (2004). *Yetkin-ideal-vizyoner öğretmen*. İstanbul: Hayat Yayınları.
- Wang, H. (2013). *Effects of self-efficacy and attributions* (Unpublished master's thesis). McGill University, Montreal.
- Warr, P., Cook, J., & Wall, T. (1979). Scales for the measurement of some work attitudes and aspects of psychological well-being. *Journal of Occupational Psychology*, 52, 129-148.



- \*Watts, G. J. (2013). *Relationship among self-efficacy, social support, job satisfaction, and teacher-related burnout* (Unpublished doctoral dissertation). Graduate Faculty of the School of Behavioral and Health Sciences, Northcentral University, Scottsdale.
- Weiss, D. J., Davis, R. V., England, G. W., & Loftquist, L. H. (1967). *Manual for the Minnesota satisfaction questionnaire*. Minneapolis: University of Minnesota Industrial Relation Center.
- Westfall, R. (2012). *An analysis of person-job fit, job satisfaction, and student academic performance* (Unpublished doctoral dissertation). Tarleton State University, Stephenville.
- Yaylan, D., & Sayın, M. (2006). *Millî Eğitim Bakanlığı hizmetiçi eğitim faaliyetlerinin değerlendirilmesi*. Ankara: Eğitimi Araştırma ve Geliştirme Dairesi Başkanlığı Yayınları.
- \*Yıldırım, İ. (2015). A study on physical education teachers: The correlation between self-efficacy and job satisfaction. *Education, 135*(4), 477-485.

**Appendix 1.** Coding Form Examples of the Studies Included in the Meta-Analysis**Database:** YÖK National Thesis Center**Word:** "Öz yeterlik" and "İş doyumu"

Study ID	Study Content					Data			
	Author (s)	Type of Stu.	Year	Study Location	Type of School*	The Scale of Self-Eff.	The Scale of Job Satis.	n	r
1	Burhan (2016)	Thesis	2016	in Turkey	Pre-School	Tepe and Demir (2012)	J. S. S.	50	.12
2	Konan (2018)	Thesis	2018	in Turkey	H. S.	T. S. E. S.	J. S. S.	100	.13
3	Konan, E. (2018)	Thesis	2018	in Turkey	H. S.	T. S. E. S.	J. S. S.	100	.45

**Database:** Google Scholar**Word:** "Öz yeterlik" and "İş doyumu"

Study ID	Study Content					Data			
	Author (s)	Type of Stu.	Year	Study Location	Type of School*	The Scale of Self-Eff.	The Scale of Job Satis.	n	r
1	Buluç and Demir (2015)	Paper	2015	in Turkey	P. S. + S. S.	MEB (2008)	Balcı (1985)	395	.46
2	Telef (2011)	Paper	2011	in Turkey	P. S. + S. S. + H. S.	T. S. E. S.	Tezer (1991)	349	.31
3	Gamsız et al. (2013)	Paper	2013	in Turkey	Pre-S. + P. S.+ S. S. + H. S.+ Other Ins.	T. S. S.	Batgün and Şahin (2006)	689	.17

**Database:** Proquest Dissertation & Thesis**Word:** "Self-efficacy" and "Job satisfaction"

Study ID	Study Content					Data			
	Author (s)	Type of Stu.	Year	Study Location	Type of School*	The Scale of Self-Eff.	The Scale of Job Satis.	n	r
1	Didonna (2018)	Thesis	2018	outside Turkey	S. S.	Pfitzner-Eden, Thiel, and Horsley (2014)	Lester (1987)	122	.26
2	Rincon (2018)	Thesis	2018	outside Turkey	Pre-School	T. S. E. S.	Griffith (2004)	14	.54
3	Watts (2013)	Thesis	2013	outside Turkey	P. S.	T. S. E. S.	Ho and Au (2006)	171	.38

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**Database:** Google Scholar

**Word:** "Self-efficacy" and "Job satisfaction"

Study ID	Study Content					Data			
	Author (s)	Type of Stu.	Year	Study Location	Type of School*	The Scale of Self-Eff.	The Scale of Job Satis.	n	r
1	Akomolafe and Ogunmakin (2014)	Paper	2014	outside Turkey	S. S.	T. S. S.	Steers (1991)	398	.26
2	Aldridge and Fraser (2016)	Paper	2016	outside Turkey	H. S.	Aldridge and Fraser (2016)	Aldridge and Fraser (2016)	781	.71
3	Briones, Tabernero, and Arenas (2010)	Paper	2010	outside Turkey	S. S.	Brouwers and Tomic (2001)	J. S. Sc.	68	.26

Pre-S. : Pre-school, P. S. : Primary School, S. S. : Secondary School, H. S. : High School

T. S. E. S. [Teachers' Sense of Efficacy Scale]: Tschannen-Moran and Woolfolk Hoy (2001)

T. S. S. [The Self-Efficacy Scale]: Sherer, Maddux, Mercandante, Prentice-Dunn, Jacobs, and Rogers (1982)

J. S. S. [ Job Satisfaction Survey]: Spector (1985)

J. S. Sc. [Job Satisfaction Scale]: Warr, Cook, and Wall (1979)

\* In studies where the school type is not specified, the type of school where teachers was determined based on their branches.