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The Effect of Gender on School Administrators and Teachers' Perceptions of Learning Organization: A Meta-Analysis Study

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Abstract

The purpose of this research is to combine effect sizes of the quantitative studies that revealed the effect of gender on school administrators and teachers' perceptions of learning organization and examine with the meta-analytical method if if there is a significant difference in effect in terms of the factors of publication type, research area, education level, scale preparation, the validity and reliability status of scales and the researcher's gender. In literature review, it was determined that 66 studies on the research topic, which consist of doctoral dissertation, master dissertation, research paper and conference proceeding were conducted. Off all these studies, 21 studies, having appropriate data related to genders of school administrators and teachers and coding protocol were included in the this research. The sample of the study consisted of 7156 participants of which were 3955 males and 3201 were females. Standardized means difference was calculated to measure the effect size. According to the research results, the calculated effect size (SMD) for the random effect model was g=-0,020 [-0,087; 0,047], which indicated that male school administrators and teachers were more favored. In addition, it was found that there was no difference in any effect size in terms of the publication type, research area, education level, scale preparation, validity and reliability status of scales and researcher's gender.

Keywords

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Introduction

In recent years, rapid developments in technology and information, has forced organizatşons to change and develop. Organizations are required to adapt to the changes in order to maintain their existence (Memduhoğlu & Kuşci, 2012). Organizations have to collect appropriate information to assess the changing conditions in order to adapt to change, use the information as needed and again, when the time comes to use, change with new information (Erigüç & Balçık, 2007). To do this, organizations must change the traditional organizational structure of the organization, restructure accesing to information, information processing and evaluating ways by providing the organizational structure (Elma & Demir, 2000). This new restructuring is provided with a learning organization involved in the management literature.

The idea of the learning organization emerged based on the theory of system developed in the 1950s (Çelik, 2003), and became widespread with the publication of the book "The Fifth Discipline"

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written by Peter Senge in the 1990s (Alp, 2007, p. 42). Learning organizations are organizations, members of whom continuously expand their capacity to achieve designated targets, gain productive thinking skills, are encouraged by the work of cooperation, learn how to learn together (Senge, 2011). Yet, such organizations are organizations showing the aimed learning activities at all the work, trying to get information which is a strategic objective in the most appropriate way and time, encouraging employees about learning, creating appropriate learning climate and learning culture for this purpose, collaborating with other organizations in social responsibility (Karadurmuş, 2012, p. 19).

Organizations can turn into organizations learning by increasing their capacities through personal mastery, mental models, builnding shared vision, team learning and systems thinking disciplines (Senge, 2011). From these disciplines, discipline of personal mastery, a level of competence that believes in lifelong learning, continually develops itself, not absolute knowledge, but works in every case to reach knowledge, and contributes to the development of the organization by learning (Bal, 2011, p. 15). The learning organization constitutes employees who know what is important to them, who are working to develop their strengths and weaknesses, and who have the mentality of constant development and learning (Ataman, 2001; Çalkavur, 2005). Team learning is the process of improving the capacity to create results that a team member really desires. Team learning is important because, in modern organizations, the basic learning unit is not individuals but teams; Organizations can not learn unless teams learn (Senge, 2011). With team learning, employees come from above the differences in personal visions and mind models, all negative interaction patterns that prevent learning individually and in groups are overcome. (Barutçugil, 2004; Ensari, 1998). Mental models express the person's view of the outside world, including definite and clear meanings (Dedehayır, 2006, p. 26). Mental models provides an understanding of employees' perspectives on the world, help them to overcome thought barriers in development and change, to improve work capacity, and to learn new skills (Dedehayır, 2006; Gödek, 2001; Öneren, 2008; Senge, 2011). Shared vision is a formation formed around a specific goal to create a shared image for future life and to ensure that individual goals are associated with organizational goals (Kılıç, 2009; Senge, 2011). Thanks to the shared vision, employees work and learn because they want to reach that vision, not because they are told to them (Boyacı, 2007). System thinking, the conceptual framework is a collective body of information, a set of information and tools, which are the unifying effects of other disciplines that help employees understand the causal and interrelated understandings of the whole system and help them understand how to change them effectively (Senge, 2011; Yang, Watkins, & Marsick, 2004).

These five disciplines encourage learning in the organizational setting, provide employee development, support open communication and constructive dialogue, and take collective intelligence to the forefront (Özden, 2002). Learning organizations collect information from their environment through their knowledge, talent and creativity, by using it to produce new information; use them to shape their future (Erigüç & Balçık, 2007). Thus, by activating and utilizing the potential forces existing within the organization, it aims to make the organization more efficient, productive and higher performance organization and not stay behind by transforming the changes and adapting to the environment (Demirci, Taşkın, & Yuca, 2006).

Although the concept of learning organization was initially put forward for companies, it was later started to think for schools as learning institutions where learning was perhaps most mentioned. Because in the 21st century, information is growing up so fast that it could not be taught by transmitting and therefore, it focuses on how to get more information from transferring information in education (Erdoğan, 2000). School is said to leave its classic teaching duties to students learning which is active. School whose task is to teach to learn must first become learning organization in its internal, learning must be seen as a natural process with the daily work and learning must become a core value of learning (Çalık, 2010). Therefore schools, along with learning organization, go into the effort of their transformation from traditional "teaching school" to "learning school". Learning schools, where students are active, "teaching effectiveness", not "learning activities" is to be at the forefront of school (Fındıkcı, 1996, p. 141).

In the literature, many studies related to learning organization with qualitative and quantitative methods have been conducted. In these studies, definition and characteristics of learning organization (Çelik, 2003; Ensari, 1998; Senge, 2011), relationships between learning organization, job satisfaction (Erdem, İlgan, & Uçar, 2014), organizational performance (Aybar, 2011; Kontoghiorges, Awbrey, & Feuring, 2005), organizational commitment (Erdem et al., 2014; Yaghoubi et al., 2010), readiness for change and adjustment (Jafari & Kalanaki, 2012; Kocoğlu, İmamoğlu, & İnce, 2011; Kontoghiorges et al., 2005) have been revealed. Examining these studies, it is seen that in abroad, studies are conducted in order to reveal the relationship with the organizational learning and some organizational-individual variables; in Turkey, studies are carried out in order to determine employees' perceptions of learning organizations. Similarly, it can be said that in the education field, studies are conducted to determine school administrators and teachers' perceptions of learning organization. In addition, as a result of numerous studies conducted to determine the level of schools with features of learning organization, school administrators and teachers' perceptions of learning organization; it does not seem as a result of full unity. It was found that in some of the studies, school administrators and teachers perceived their schools' exhibiting level of learning organization properties as "often", "sometimes" or "rarely". However, there are different findings in studies in terms of the independent variables such as gender, branch, education level, seniority, school size and age and so on. In particular, a significant difference variable was not found in terms of gender in some studies; significant differences can be found in other studies (Aksu, 2013; Alanoğlu, 2014; Bilir, 2014; Coşun, 2008; Gökyer, 2011; Güleş, 2007; Günbayı & Akdeniz, 2007; Karadurmuş, 2012; Kılıç, 2009; Memduhoğlu & Kuşci, 2012; Menteşe, 2013; Recepoğlu, 2013; Subaş, 2010; Tacar, 2013; Tuna, 2014; Uysal, 2008; Üstün & Menteşe, 2013; Yıldız, 2011).

Reviewing the literature, any study examining the effect of gender on the perception of the learning organization by meta-analysis has not been found. It is also necessary to investigate which factors are influential on the presence and perception of the effect on the gender-learning organizational perception. It is necessary to investigate which factors are influential on the existence and perception of the effect on the gender-learning organizational perception. The awareness of the existence of the effect on the gender-learning organization will contribute to make arrangements for male and female employees to create a learning organization, provide perception management, the team's ability to respond to changes in the organization, both inside and outside, sharing the vision of the organization by all employees, the creation of mental models that provide a common viewpoint among employees. Therefore, it is expected that evaluating the results of the research as a whole will allow a better understanding of the learning organization. At this point, synthesizing the results of studies conducted to determine school administrators and teachers' perceptions of learning organization may also contribute to set out the current situation and strategically determine the direction for further study by subtracting out the big picture on the subject. In this light the rationale, it is aimed to determine effect sizes related to school administrators and teachers' perception of learning organization and examine whether there is a difference between the effect sizes in terms of some variables ignored in primary studies in this study.

Method

In this study, meta-analysis method, which is one of the systematic syndissertation methods, was used. "The meta-analysis refers to an analysis in order to obtain an overall result by compounding the results obtained from different studies (Dinçer, 2014, p. 2)". Some reasons to perform Meta-analyses are to establish the presence of an effect, etermine the magnitude of an effect, resolve differences in a literature, determine important moderators of an effect (DeCoster, 2004). A meta-analysis is traditionally conducted in three main steps: (1) location and selection of appropriate studies, (2) coding of study features and calculating effect sizes, and (3) statistically analyzing effect sizes and the influence of study features (Höffler & Leutner, 2007).

Findings of studies on the same subject may differ. It is important for the meta-analysis that the differences are natural, and that they can reasonably be ignored (Akgöz, Ercan, & Kan, 2004). For this

reason, heterogeneity test is performed by choosing the appropriate model for the findings obtained as a result of statistical analysis (Gözüyeşil & Dikici, 2014). The fixed-effect model is based on the assumption that there is only one true impact size for all studies in the meta-analysis whereas the random-effects model is based on the idea that the actual effect size may vary from work to work due to some intermediate variables such as age, education level or class size of the participants (Üstün & Eryılmaz, 2014).

Subgroup analysis is performed to determine the origin of the heterogeneity. This is also called moderator analysis (Gözüyeşil & Dikici, 2014). These analyzes can be done with various statistical programs [Comprehensive Meta Analysis (CMA), MetaWin Statistical Program] or by using related formulas.

Collecting Data

In meta analysis, criteria which will be used for the selection of the studies to be included the research are important to prevent publication bias. These criteria need to be specified in the meta-analysis protocol. The criteria should follow immediately from the objectives of the study (Berman & Parker, 2002). The path followed in the selection of the studies included in the research and in the process of being included in the meta-analysis is as follows:

(i) Criterion: Published or unpublished sources: Doctoral dissertations, master dissertations and research papers were included the research.

Araştırmanın kapsamı Türkiye'de yayınlar çalışmalar olması nedeniyle YÖK Tez Merkezi ve Google Akademik Veri Tabanı taranmıştır. Literatür taraması yapılırken YÖK tez kataloğu ve Google akademik elektronik veri tabanları incelenmiştir. Considering the studies published in English in Turkey, during the review of literature, YÖK dissertation catalog and Google academic electronic databases were investigated. To achieve related studies, "öğrenen örgütler", "öğrenen organizasyonlar", "learning organizations" keywords were searched in databases. At the end of literature review, a doctoral dissertation related to learning organization was not observed. As a result of the determination of the duplicate copies of the master dissertations and research paper, 66 studies were reached.

(ii) Criterion 2: The suitability of the sample and research methods in the studies: In meta-analysis studies, in order to reach effect size, studies must be empirical, have used groups of men and women as a independent variable, having been in Turkey between the years 2000-2015, have been carried out in pre-school and primary education institutions.

As result of the examining studies' samples and methods, it was seen that 45 studies were in accordance with the desired criteria.

(ii) Criterion 3: The inclusion of sufficient quantitative data and availability of the studies: To calculate the effect size required for the meta-analysis, sample size, mean, standard deviation belonging to the groups of male and female paticipants was taken into account. In this study, "Hedges g" was used to calculate the effect size.

21 studies including school administrators and teachers' perceptions of learning organization and having necessary data to estimate the effect size of the studies were determined. 21 studies involving gender data for school administrators and teachers' perceptions of learning organization were carried out to cover a total of 7156 participants, including 3955 males and 3201 females. However, the numerical values (arithmetic mean and standard deviation) regarding gender of school administrators and teachers' views were provided separately in the two studies. The data for school administrators in these studies were shown to be achieved over a relatively small sample (Coşun, 2008; n=7 ve Kılıç, 2009; n=9) compared to other studies. It is desirable that the studies included in the analysis in the meta-analysis are similar. The reason for this is the calculation of an effect size according to similar studies. If the studies are not similar, comments will be made on the results of many variables (Tuncer & Dikmen,

2017). Coşun (2008) ve Kılıç's (2009) data related to school administrators were not included in the study with the idea that this situation could lead to misinterpretation.

A clear and detailed coding form was developed based on the study of Gözüyeşil and Dikici (2014) This encoded form of the studies consisted of three parts. The first part was "study ID". This part contained information such as identification number of studies, the name of the studies, the author or authors' name, the year when the study was conducted and printing shape of the studies to identify the identification of studies. The second part was "study content". In this part, information such as the characteristics of the sample groups, the type of instrument used, validity and reliability status of the instruments of studies carried out regarding learning organizations were given information. The third part was "study data". In this part, information about sample size, the average and standard deviation values derived from male and female participants in the study was determined.

In this study, when calculating the value of the average effect size related to participants' genders, the values of the female participants as the control group, the values of the male participants as the experimental group were taken. In the findings obtained based on gender variable for learning organization, positive sign indicates that the perception of female participants was higher than male participants; the negative sign indicates that the perception of male participants was higher than female participants.

Data Analysis

Effect size is suitable when it is used as a relationship of quantitative difference between two variables or two groups (Borenstein, Hedges, Higgins, & Rohtstein, 2013, p. 18). Effect sizes can be calculated on the basis of the means, rates and correlations (Cohen, 1988). The effect size measurements calculated according to the difference are shown in Cohen's d (Cohen, 1988), Glass's g (Glass, 1976) ve Hedge's d (Hedges, 1981). To calculate with Cohen's d formula, there is a need for group averages and pooled standard deviation information. Hedges's g and Cohen's d calculations are quite similar but differ only in the computed pooled standard deviation (Özsoy & Özsoy, 2013). In this study, the pooled standard deviation (SD) and standardized effect size (Hedges g) formulas for male and female participants used in the study are given below.

$$Pooled\ standart\ deviation\ (SD) = \frac{(nf-1)Sf^2 + \sqrt{(nm-1)Sm^2}}{nf + nm - 2} \qquad Hedges\ g = \frac{\overline{Xf} - \overline{Xm}}{SD}$$

nf = Number of persons in sample belonging to female participants

nm = Number of persons in sample belonging to fmale participants

Sf = Standard deviation of data from female participants

Sm = Standard deviation of data from male participants

$\overline{Xf}$ = Arithmetic mean obtained from data of female participants

$\overline{Xm}$ = Arithmetic mean obtained from data of female participants

The variances and effect sizes of each study and comparison of groups were calculated by using statistical package program for meta-analsis CMA Ver. 2.2.064 [Comprehensive Meta Analysis]. SPSS package program was used in graphic drawings. Effect size classification of Cohen, Manion, and Morrison (2007) were used for interperation of effect sizes. According to Cohen et al. (2007, p. 521) the effect size classification is as follows: 0 ≤ Effect size value ≤ 0,20 poor, 0,21 ≤ Effect size value ≤ 0,50 modest, 0,51 ≤ Effect size value ≤ 1,00 moderate, 1,01 ≤ Effect size value strong.

Results

Characteristics of the study

The frequencies and percentages of the studies included in the research according to publication type, research area, education level, scale preparation, validity and reliability status of scales and the researcher's gender are give in Table 1.

According to the Table 1. 72,43% (n = 15) and 27,857% (n = 15) of the studies are master's dissertation and research paper, respectively. 9,52% (n = 2), 9,52 % (n = 2), 9,52 % (n = 2), 38,10% (n = 8), 14,29% (n = 3), 14,29% (n = 3), 4,76% (n = 1) of the studies were applied in Mediterranean, Aegean, Black Sea, Marmara, Central Anatolia, Eastern Anatolia and Southeastern Anatolia regions, respectively. 4,76% (n=1), 72,43% (n=15), 23,81% (n=5) of the studies were carried out in preschool, primary school, secondary school, respectively.

Table 1. The Frequency and Percentages of the Studies According to the Moderator Variables

Moderator		Frequency	Percentages
Publication type	Master's dissertation	15	72,43
	Research paper	6	27,57
Research area	Mediterranean	2	9,52
	Aegean	2	9,52
	Black Sea	2	9,52
	Marmara	8	38,10
	Central Anatolia	3	14,29
	Eastern Anatolia	3	14,29
	Southeastern Anatolia	1	4,76
Education level	Preschool	1	4,76
	Primary school	15	72,43
	Secondary school	5	23,81
Scale preparation	Developed	5	23,81
	Adapted	3	14,29
	Prepared	13	61,90
Validity and reliability	Made	10	41,62
	Unmade	11	58,38
Researcher's Gender	Male	15	71,43
	Female	6	28,57

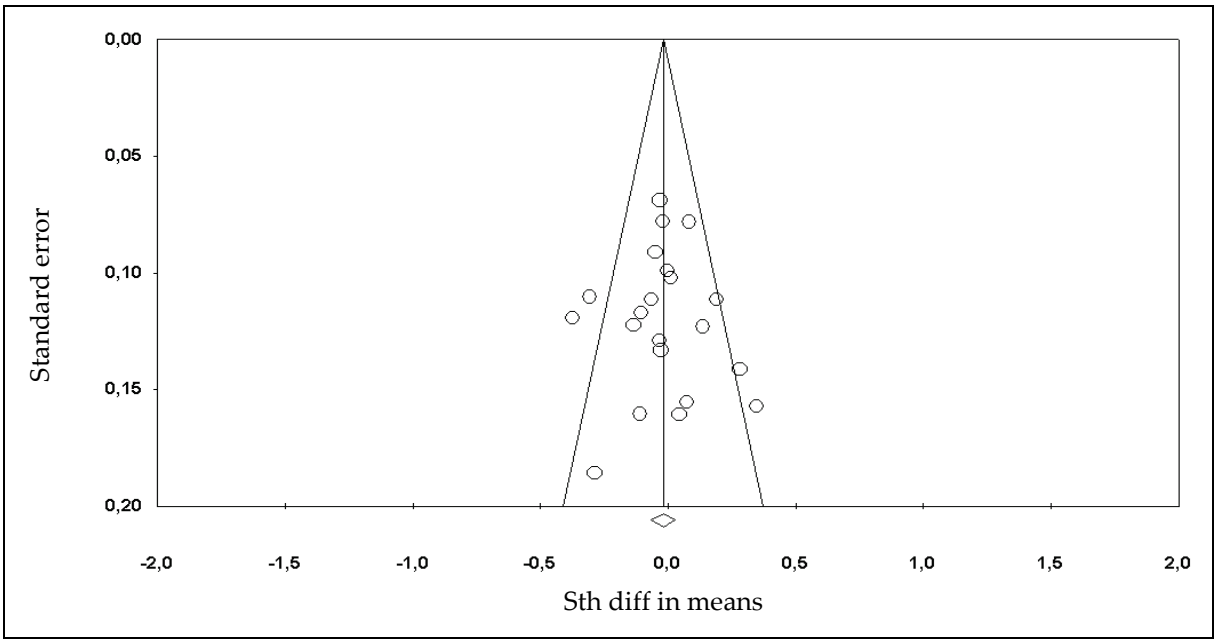
Publication Bias

Although a meta-analysis is obtained by synthesizing studies in the analysis defenselessly, if these studies are biased in all samples of relevant studies, the main effect will be initiated by reflecting this bias in the meta-analysis (Borenstein et al., 2013, p. 267). Because a meta-analysis, by defination, is synthesis of a avaible literature on a particular topic or variable, publication of articles that significant finding is detrimental to meta analysis procedure (Long, 2001, p. 6). Therefore, it is necessary to look whether there is bias before starting to the meta-analysis. In this study publication bias was tested using funnel scatter graph, Classic Fail-Safe N, Begg and Mazumdar Correlation, Egger's Linear Regression.

The results of funnel scatter plot graph showing likelihood of publication bias are shown in Graph 1.

Funnel plots are used primarily as a visual aid for detecting bias or heterogeneity (Cabrera & Higgins, 2010). Funnel scatter plot shows the standard error values (SE) in the Y-axis and effect (g) size of the study in the X-axis (Borenstein et al., 2013, p. 272). In the absence of publication bias, all of the individual studies are expected to be in the line of the funnel and is to be symmetrically. The middle line represents the overall effect and individual studies are expected to gather around this line (Dinçer, 2014, p. 77).

As shown in Graph 1, the majority of the 21 studies included in the study are located in a correct position in the upper part of the figure and very close to a combined effect size. Only one study involving the views of participants settled to the bottom of the figure. Therefore, it can be said that the 21 studies included in the study do not have the bias of publication.



Graph 1. Funnel Scatter Plot

Classic Fail-Safe N calculation is performed to test the publication bias. In Classic fail-Safe N statistic, the number of the studies to be included in the analysis can be found in order that the power and the p-value of the study are greater than the alpha (Dinçer, 2014, p. 78). The average effect size g = -0, 020 founded as a result of the meta-analysis, the number of studies required to achieve 0,05 level, in a sense almost zero effect-level is zero. In addition, Kendall Tau coefficient used to determine statistically whether there is a publication bias was seen to be 0,038 and p = 0,809, in this case, as p-values does not create a significant difference, in a sense, expectation that p- value is greater than 0,05 is meet, it is also disclosed statistically that there is no publication bias. As a result of Egger's linear regression test (p = 0.969> 0.05), it can be said with 95% confidence that there is no bias.

The Uncombined Results of Effect Size Analysis related to the School Administrators and Teachers' Gender

In meta-analysis studies, dependence between effcet sizes may be a concern. If there is a dependence between the effect sizes (for example, multiple effect sizes obtained from the same study), then this dependency has to be achieved before the analyzes begin (Şen & Akbaş, 2016, p. 3). It is seen that this dependency problem comes from different ways in the literature. The research conducted by Coşun (2008) and Kılıç (2009) in this study was carried out on two different groups (school administrators and teachers). However, as explained in the data collection section, the data obtained from school administrators is not included in the meta-analysis. Therefore, it is not a matter of getting different effect sizes without the same study.

The effect size of school administrators and teachers' perceptions of learning organization as ranked toward the large effect size value than the small effect size, the standard error and its lower and upper limits by the 95 confidence interval %95 are given in Table 2.

Table 2. The effect size (Hedges' g), variance, standard error values and confidence intervals of the gender variables of the studies included in the meta-Analysis

Study (Researcher, Year)	Effect size	Sth. error	Variance	Lower limit	Upper limit	Z	p
Güleş (2007)	- 0,374	0,119	0,014	-0,608	- 0,140	- 3,137	0,002
Memduhoğlu and Kuşci (2012)	- 0,308	0,110	0,012	-0,524	- 0,092	- 2,792	0,005
Tacar (2013)	- 0,288	0,186	0,034	-0,652	0,076	-1,549	0,121
Tuna (2014)	- 0,135	0,122	0,015	-0,374	0,105	-1,102	0,270
Subaş (2010)	- 0,110	0,160	0,026	-0,424	0,204	- 0,685	0,493
Aksu (2013)	- 0,105	0,117	0,014	-0,334	0,125	- 0,895	0,371
Uysal (2008)	- 0,064	0,111	0,012	-0,282	0,154	- 0,577	0,564
Karadurmuş (2012)	- 0,049	0,091	0,008	-0,228	0,129	-0,540	0,589
Bilir (2014)	- 0,034	0,129	0,017	-0,287	0,219	-0,263	0,793
Yıldız (2011)	- 0,032	0,063	0,005	-0,167	0,103	-0,461	0,645
Üstün and Menteşe (2013)	- 0,027	0,133	0,018	-0,288	0,234	-0,203	0,839
Alanoğlu (2014)	- 0,021	0,078	0,006	-0,173	0,132	-0,266	0,790
Gökyer (2011)	- 0,004	0,099	0,010	-0,198	0,190	-0,036	0,971
Günbayı and Akdeniz (2007)	0,011	0,102	0,010	-0,190	0,211	0,104	0,917
Recepoğlu (2013)	0,044	0,161	0,026	-0,271	0,360	0,277	0,782
Eğmir (2012)	0,075	0,155	0,024	-0,229	0,379	0,484	0,628
Bal (2011)	0,082	0,078	0,006	-0,071	0,235	1,046	0,296
Kılıç (2009)	0,136	0,123	0,015	-0,105	0,377	1,107	0,268
Coşun (2008)	0,190	0,111	0,012	-0,028	0,408	1,705	0,088
Uysal (2005)	0,282	0,141	0,020	0,005	0,558	1,994	0,046
Menteşe (2013)	0,348	0,157	0,025	0,040	0,656	2,213	0,027

According to Table 2, the standardized effect sizes of 21 studies vary in the of range -0,374 to 0,348. Three studies shows statistically significant differences (p <0,05), while no significant difference have not been determined in 18 studies. Confidence intervals of 21 studies ranges from -0,608 to 0,656. In addition, examining the Table 2, it is seen that 13 of the studies included in the meta-analysis have negative effect sizes and there is a difference in favor of male participants However, this difference is said to be very close to the ineffectiveness drawing. The difference is in favor of male participants can be interpreted as the male participants' of the learning organization is higher than female participants' perception of the learning organization.

A meta-analysis diagram (forest plot) was formed to investigate the uncombined effect sizes of the studies included in the meta-analysis according to the gender variable. The Meta-analysis diagram (forest plot) showing the effect direction of the studies is given in Figure 1.

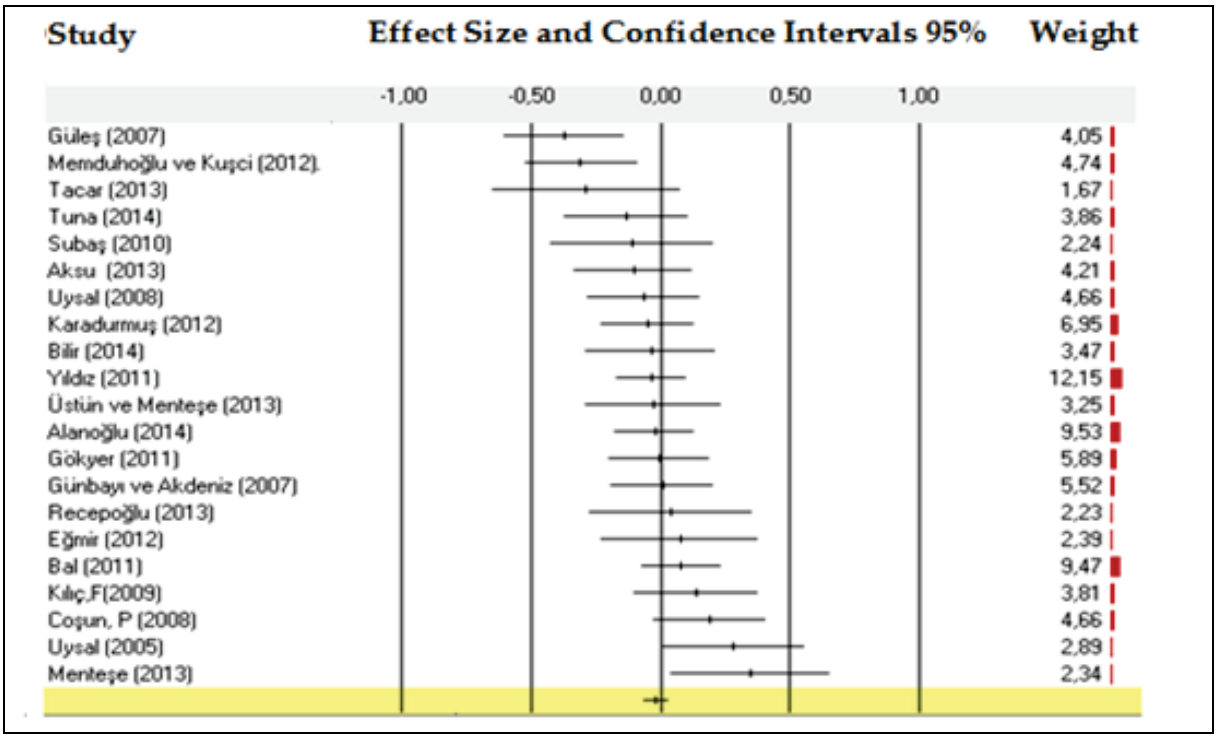


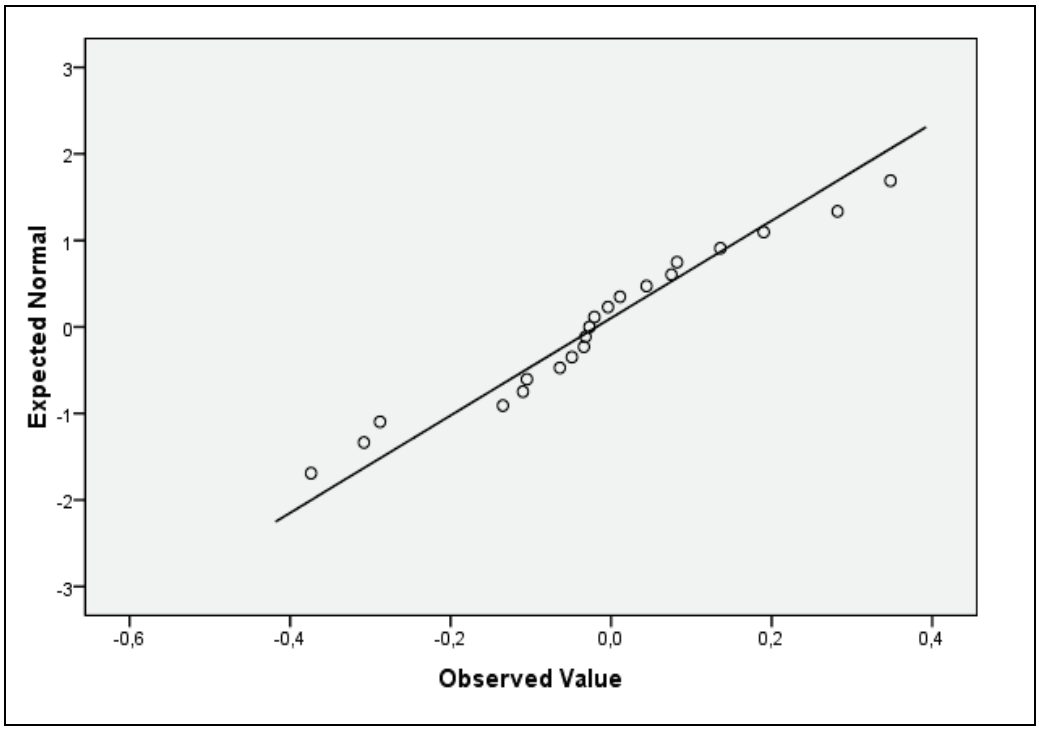
Figure 1. The Meta-Analysis Diagram (Forest Plot) Showing the Effect Direction of The Studies

Effect sizes of the studies in the meta-analysis are shown in the diagram with black lines or squares and horizontal lines passing through each frame shows that the confidence interval of the study. The higher the confidence interval of the horizontal line is so large (Gözüyeşil & Dikici, 2014). Confidence intervals suggest that there are statistically significant findings. If all studies are actually able to predict a similar value, confidence interval is expected to be much narrower. Usually small samples have large confidence intervals; but narrow confidence intervals are associated with larger sample (Sarıer, 2013).

According to the diagram (forest plot) shown in the figure 1, while the study with the narrow confidence intervals is Yıldız (2011), the study with the wide confidence intervals is Tacar (2013) of the 13 study (%61, 90) shows that gender effectiveness is in the negative direction. Based on this value of negative effect size, it can be said that there may be a difference in favor of school administrators and teachers but this difference is very close to the ineffectiveness drawing.

When the weights of the studies are examined in the general effect calculation, it is seen that the study carried out by Yıldız (2011) has the highest working weight (12.15%). To investigate whether this study significantly differentiated the magnitude of the overall effect, the study was repeated from the analysis and the analysis was repeated. At the end of the second analysis, the general effect size is calculated as -0.018. Since there is no significant difference between the two analyzes in terms of the magnitude of the general effect, it is concluded that the study does not need to be excluded from the analysis.

Meta-analysis studies are done by combining effect sizes. The effect size values need to have normal distribution in order to be able to combine the effect sizes. The SPSS program was used to determine if the effect size values were normal in order to combine 21 studies. The normal distribution graph of the effect sizes of the studies included in the study is given in Chart 2.



Graph 2. Normal Distribution Graph of Effect Sizes

When Graph 2 is examined, it is seen that the effect sizes are collected along the line X = Y. It is therefore understood that the effect sizes have normal distribution. It can be said that the distribution is normal because the skewness (-0,022) and kurtosis (0,393) values of the effect sizes are in the range of +1 and -1. When the Shapiro-Wilk test results are examined, it is understood that the effect size values are normal distribution (W = 0.966, p> 0.05). It can be argued that the combination of these 21 studies for meta-analysis is statistically appropriate.

Homogeneity, Q and I^2 Statistics

During the meta-analysis, when deciding which model wil be selected, whether effect sizes disperse homogeneously is tested. According to test results, if the effect sizes are uniformly distributed, it said the fixed effects model can be used. If the effect sizes are not uniformly distributed, than random-effects model should be used (Ellis, 2010; as cited in Gözüyeşil & Dikici, 2014). In both models, to obtain a more precise estimate of summary effect (population mean for the fixed-effects model and overall average for the random-effects model), so to minimize the variance, a weighted average is calculated by giving more weight to studies whose accuracy are more higher (Üstün & Eryılmaz, 2014).

At the end of the homogeneity test, the Q-statistical value was calculated to be Q = 37.281 (p = 0,011). As found on the $\chi 2$ table, 20 degrees of freedom at a 95% significance level was 31.410. As the Q-statistical value (Q = 37.281) with 20 degrees of freedom exceed the critical value [$\chi 2(0,95)$ =31,410] of chi-square distribution, null hypodissertation of the homogeneity of the distribution of effect sizes were rejected in the fixed effects model. These values indicated that the distribution of the effect sizes of the studies were heterogeneous in terms of the fixed effects model.

I^2 is a real homogeneity rate in the total change of observed effect. This measurement which is useful for this purpose is not sensitive to the number of studies and the measurement of effect size coefficient (Borenstein et al., 2013, p. 119). In the interpretation of I^2, 25%, 50% and 75% show lower level of heterogeneity, moderate level of heterogeneity and high level of heterogeneity, respectively (Higgins, Thompson, Deek & Altman, 2003). In terms of gender variable, for teh average effect size (g = -0.020) the obtained based on fixed effects model, I^2 value (I^2 = 46,353) 46% shows a moderate level of heterogeneity.

The Combined Results of Effect Size Analysis Related to the School Administrators and Teachers' Genders According to the Fixed and Random Effect Models

The average effect size obtained from effect sizes of school administrators and teachers' perception of the learning organization combined according to fiixed and random effects model of the effect sizes, standard error, its upper and lower limits by confidence interval 95% are given in Table 3.

Table 3. The Combined Results of Effect Size Analysis Related to the School Administrators and Teachers' Genders According to the Fixed and Random Effect Models

Model	Effect size and Confidence interval% 95							
	Number of studies	Effect Size	Sth. Error	Variance	Lower Limit	Upper Limit	Z	p
Fixed effects	21	-0,020	0,024	0,001	-0,067	0,027	-0,823	0,411
Random effects	21	-0,020	0,034	0,001	-0,087	0,047	-0,587	0,557

Based on the homogeneity test (Q) and I^2 statistic, as the sampling errors induced homogeneity test was higher than expected value, the model was converted into random effects model by calculating the variance of the random effect component. The results of the meta-analysis conducted based on the fixed effects model indicated that standard deviation was 0,034, the upper limit of the 95% confidence interval was 0,047 and the lower limit was -0,087. When interpereted according to the classificaton of Cohen et al. (2007), effect size g=-0,020 is small.

Based on Z test calculations, z value was found to be z= -0,587. The results achieved with p = 0,557 was determined to be not statistically significant. However, the lack of statistical significance should never be interpreted as ineffective (Borenstein et al., 2013, p. 265). Although the effect size of gender was low, it was said to have an effect on school administrators and teachers' perceptions of learning organization when considering the impact size classification of Cohen et al. (2007). In this respect, based on random effects model, learning organization perception seemed to be in favor of male participants.

The Results of Moderator Analysis

For publication type, research area, school level, scale preparation (that is, the author either developed the scale or used a ready-made one), reliability and validity of the scales used in the studies, researcher' gender. Effect size distribution and homogeneity test of the studies according to publication type are given in Table 4.

Table 4. Effect Size Distribution and Homogeneity Test of the Studies According to Publication Type

Moderator	Number of studies	Effect size	Sth. error	%95 CI	Q_B
Publication type					0,015
Master's dissertation	15	-0,018	0,028	-0,072; 0,036	
Research paper	6	-0,025	0,049	-0,121; 0,071	

In order to determine the effect of publication type on the overall effect size of the studies publication type was divided into two different groups, including master's dissertation and research paper. According to the types of publication; the absolute value of the effect size of master's dissertation type (g = -0,018) was found to be smaller than the absolute value of the effect size of research paper (g = -0,025). In addition, the homogeneity test was calculated as Q_B=0,015. Statistic value [Q_B = 0.015; p = 0,903] is less than the critical value of the $\chi 2$ distribution [$\chi 2$ (0,95) = 3,841] at the 1-degree of freedom and 95% significance level. Hence, the homogeneity hypothesis for distribution of effect sizes is accepted in the fixed effects model. According to this, it can be said that there is no meaningful difference when the studies included in meta-analysis are grouped according to publication type and the effect sizes are examined.

Effect size distribution and homogeneity test of the studies according to research area are given in Table 5.

Table 5. Effect Size Distribution and Homogeneity Test of the Studies According to Research Area

Moderator	Number of studies	Effect size	Sth. error	%95 CI	Q_B
Research area					
Mediterranean	2	-0,003	0,081	-0,162; 0,156	5,165
Aegean	2	0,047	0,071	-0,092; 0,185	
Marmara	2	0,102	0,098	-0,089; 0,294	
Black Sea	8	-0,062	0,036	-0,133; 0,008	
Central Anatolia	3	0,074	0,091	-0,105; 0,252	
Eastern Anatolia	3	-0,052	0,067	-0,182; 0,079	

In order to determine the effect of research area on the overall effect size of the studies was divided into seven different groups, including Mediterranean, Aegean, Marmara, Black Sea, Central Anatolia, Eastern Anatolia and Southeastern Anatolia regions. As at least two studies are required for each group created in the calculation of the effect size, Southeastern Anatolia Region with less than 2 two studies has been removed. Thus, comparisons between the Mediterranean, Aegean, Black Sea, Marmara, Central Anatolia and East Anatolia Region could be made. According to the research area; in terms of absolute values the highest effect size was observed for the Black Sea Region (g = 0,102); the lowest effect size (g = -0,003) was observed for the Mediterranean Region. In addition, the homogeneity test value Q_B = 5,165 was calculated. The Q_B statistic value [Q_B = 5,165, p = 0,396] is less than the critical value of the $\chi 2$ distribution [$\chi 2$ (0,95) = 11,070] at the 5-degree of freedom and 95% significance level. Hence, the homogeneity hypothesis for distribution of effect sizes is accepted in the fixed effects model. According to this, it can be said that there is no meaningful difference when the studies included in meta-analysis are grouped according to the research area where the studies are performed and the effect sizes are examined.

Effect size distribution and homogeneity test of the studies according to education level are given in Table 6.

Table 6. Effect Size Distribution and Homogeneity Test of the Studies According to Education Level

Moderator	Number of studies	Effect size	Sth. error	%95 CI	Q_B
Education level					0,391
Primary school	15	-0,038	0,028	-0,093; 0,017	
Secondary school	5	-0,002	0,050	-0,100; 0,095	

In order to determine the effect of education level on the overall effect size of the studies is divided into threee different groups, including, preschool, primary school and secondary school. As at least two studies are required for each group created in the calculation of the effect size, preschool with less than 2 two studies has been removed. Thus, comparisons between the primary school and secondary could be made. According to the education level; the absolute value of the effect size of primasry school (g = -0,038) was found to be bigger than the absolute value of the effect size of secondary school (g = -0,002). In addition, the homogeneity test value Q_B = 0,391 was calculated. The Q_B statistic value [Q_B = 0,391, p = 0,532] is smaller than the critical value of $\chi 2$ distribution at 1% degree of freedom and 95% level of significance [$\chi 2$ (0,95) = 3,841]. Hence, the homogeneity hypothesis for distribution of effect sizes is accepted in the fixed effects model. According to this, it can be said that there is no meaningful difference when the studies included in meta-analysis are grouped according to education level and the effect sizes are examined.

Effect size distribution and homogeneity test of the studies according to scale preperation are given in Table 7.

Table 7. Effect Size Distribution and Homogeneity Test of the Studies According to Scale Preperation

Moderator	Number of studies	Effect size	Sth. error	%95 CI	Q_B
Scale preperation					
Developed by researchers	5	0,027	0,055	-0,081; 0,134	1,150
Adapted	3	-0,054	0,052	-0,156; 0,049	
Prepared	13	-0,023	0,031	-0,084; 0,038	

In order to determine the effect of scale preperation on the overall effect size of the studies is divided into three different groups, including, developed by researchers, adapted or prepared scale According to the scale preperation; in terms of absolute values the highest effect size was observed for the adapted scale (g = -0,054). In addition, the homogeneity test value Q_B = 1,150 was calculated. Q_B statistic value [QB = 1,150; p = 0,563] is less than the critical value of the $\chi 2$ distribution [$\chi 2$ (0,95) = 5,991] at the 2-degree of freedom and 95% significance level. Hence, the homogeneity hypothesis for distribution of effect sizes is accepted in the fixed effects model. According to this, it can be said that there is no meaningful difference when the studies included in meta-analysis are grouped according to the scale preparation and the effect sizes are examined.

Effect size distribution and homogeneity test of the studies according to the validity and reliability status of scales are given in Table 8.

Table 8. Effect Size Distribution and Homogeneity Test of the Studies According to the Validity and Reliability Status of Scales

Moderator	Number of studies	Effect size	Sth. error	%95 CI	Q_B
Validity and reliability					
Made	10	0,023	0,036	-0,047; 0,093	2,673
Unmade	11	-0,055	0,032	-0,119; 0,08	

In order to determine the effect of the validity and reliability status of scales on the overall effect size of the studies it is divided into two different groups, including made and unmade. According to the validity and reliability status of scales; the absolute value of the effect size of unmade (g = 0,055) was found to be smaller than the absolute value of the effect size of made (g = 0,023). In addition, the homogeneity test value Q_B = 2,673 was calculated. Q_B statistic value [Q_B = 2,673; p = 0,102] is less than the critical value of the $\chi 2$ distribution at the 95% significance level [$\chi 2$ (0,95) = 3,841]. Hence, the homogeneity hypothesis for distribution of effect sizes is accepted in the fixed effects model. According to this, it can be said that there is no meaningful difference when the studies included in meta-analysis are grouped according to the validity and reliability of the scales and the effect sizes are examined.

Effect size distribution and homogeneity test of the studies according to the researcher gender are given in Table 9.

Table 9. Effect Size Distribution and Homogeneity Test of the Studies According to the Researcher Gender

Moderator	Number of studies	Effect size	Sth. error	%95 CI	Q_B
Researcher's Gender					
Male	15	-0,036	0,029	-0,093; 0,021	1,002
Female	6	0,016	0,043	-0,068; 0,100	

In order to determine the effect of the researcher gender on the overall effect size of the studies it is divided into two different groups, including male and female. According to the researcher gender; the absolute value of the effect size of female researcher (g = 0,016) was found to be smaller than the absolute value of the effect size of male researcher (g = -0,036). In addition, the homogeneity test between the grades was calculated as the value of Q_B = 1,002. The Q_B statistic value [Q_B = 1,002, p = 0,317] is smaller than the critical value of $\chi 2$ distribution [$\chi 2$ (0,95) = 3,841] at the 1 degree of freedom and 95% significance level. Hence, the homogeneity hypothesis for distribution of effect sizes is accepted in the fixed effects model. According to this, it can be said that there is no meaningful difference when the studies included in meta-analysis are grouped according to the reseacher's gender and the effect sizes are examined.

Discussion and Conclusion

In this meta-analysis, 21 studies containing school administrators and teachers' perceptions of learning organization and having the necessary data to estimate the effect size were determined. A sample of 7156 participants was considered large enough to determine a syndissertation value. Effect sizes were calculated from the 21 studies. 3 studies showed statistically significant differences (p <0,05), while no significant difference was determined in 18 studies. The funnel scatter graph generated to determine whether there is bias in publications shows that there is no bias in terms of studies included in the research. According to the results of Classic Fail-Safe N, Begg and Mazumdar Correlation, Egger's Linear Regression Test used in determination of publication bias, it is concluded that publication bias is not present. In the fixed effects model, it was seen that the magnitude of the effect in the merging result was in favor of the male participants.

For the fixed effects model, a negative effect size was -0,020 [-0,067; 0,027] in favor of male participants. The heterogeneity tests (Q and I^2 statistics) revealed a moderate (46%) level of heterogeneity, so random effect model calculations were conducted. A similar result 0.020 [-0,087–0,047] was found. The point of interest here is that the effect sizes calculated according to the fixed and random effects models are the same. The same reason why the results are the same can be the sources of errors observed in the models. In the random effects model, there are two sources of error (between-study heterogeneity in true effects ve within-study sampling error) in the random effects model (Borenstein et al., 2013, pp. 69-77). For this reason, although the results obtained in the two models are the same, the results of the random effects model are presented in this study.

The effect size found in the random effects model is shown in Cohen et al. (2007) classification. When the studies written in the field are examined, the results of systematic meta-analysis studies are supported by voting method and explanatory synthesis (Kış & Konan, 2014). In this respect, when 21 studies were evaluated according to the voting method used as another kind of systematic synthesis, the majority of the studies reached a statistically significant result of 85.7% (18 studies), so that there was no difference between the perceptions of the participants in terms of gender variation. Similarly, when 21 studies were evaluated according to explanatory synthesis, a large majority of studies (85.7%, 18 studies) did not yield a statistically significant result. Significantly, 3 (14.3%) of the studies women are male and 2 are females. Therefore, the results obtained from voting and explanatory synthesis methods support the direction and magnitude of the difference obtained by systematic synthesis. When these results were considered together, school administrators and teachers' perceptions of learning organization showed a significant difference between male and female participants, but this diffence was very small in practice, so can be ignored. So, for future research, as an independent variable, gender may not be needed. The findings of the current study shows those male school administrators and teachers' perceptions of the learning organization is higher than females. This finding is consistent with the results of other national studies (Aksu, 2013; Alanoğlu, 2014; Bilir, 2014; Güleş, 2007; Gökyer, 2011; Karadurmuş, 2012; Kılıç, 2009; Subaş, 2010; Tacar, 2013; Üstün & Menteşe, 2013; Yıldız, 2011). On the other hand, it is necessary to examine the opinions of the five disciplines in order to elucidate the reasons behind male employees having a higher learning organization perception than female employees. For example, the way of thinking about the world, beliefs, assumptions, generalizations, interpretations, and so on, in an other saying, mental models may differ by sex. This may be reflected in the perception of women and men employees in the organization environment. Shared vision in relation to mental

models affects the point of view of the common future so that it is not expect that those who do not have the same mental models share the same vision, develop their personal dominance to achieve this vision. This can adversely affect the dominance of system thinking which has the unifying effect of the disciplines of the learning organization and perception of the learning organization in the same way by everyone.

Moderator variables to explain the difference between male and female participants' perceptions of the learning organization were also analyzed The findings revealed that there was no significant difference in the effect sizes in terms of publication type (Q_B =0,015, p > 0,05), research area (Q_B = 5,165, p > 0,05), education level (Q_B = 0,391 p > 0,05), scale preparation (Q_B =1,150, p > 0,05), the validity and reliability status of scales (Q_B = 2,263, p > 0,05), and the researcher's gender (Q_B =1,002, p > 0,05). As there have not been any previous national and international meta-analysis studies on this topic, this result is not comparable.

This study has been has been carried out to determine the effect of gender on school administrators and teachers' perceptions of the learning organization. Future researchers, other personal characteristics (branch, seniority, age, etc.) considered to be effective on school administrators and teachers' perceptions of learning organization may be subject to a meta-analysis. Relevant studies involving meta-analysis appear to have been conducted at primary and secondary levels in general. It can be repeated with the inclusion of studies to be carried out at the preschool level in the future. Thus, the impact on the perception of gender learning organization can be determined in preschool educational institutions where female employees are concentrated. This difference was found to be in favor of men, where the perceptions of school administrators and teachers' learning organisation were not significant in terms of gender. The reasons for this can be revealed by qualitative research. Given the fact taht there are a limited number of studies about learning organizations in the country, status of other related studies conducted in abroad can be examined and an opportunity to compare studies results can be provided or in the future, as more empirical studies are conducted on this topic, the meta-analysis could be repeated.

References

Akgöz, S., Ercan, İ., & Kan, İ. (2004). Derleme meta-analizi. *Uludağ Üniversitesi Tıp Fakültesi Dergisi*, *30*(2), 107-112.

Aksu, M. (2013). *Meslek lisesi yönetici ve öğretmenlerinin öğrenen örgüt algıları* (Unpublished master's thesis). Eskişehir Osmangazi University, Eskişehir.

Alanoğlu, M. (2014). *Ortaöğretim kurumlarının örgütsel öğrenme düzeylerinin okul etkililiği ve örgütsel vatandaşlık davranışlarına etkisi* (Unpublished master's thesis). Fırat University, Elazığ.

Alp, A. (2007). *İlköğretim öğretmenlerinin öğrenen örgüt kültürüne ilişkin algıları (İstanbul ili örneği)* (Unpublished master's thesis). Beykent University, İstanbul.

Ataman, G. (2001). *İşletme yönetimi temel kavramlar ve yaklaşımlar*. İstanbul: Türkmen Kitabevi.

Aybar, S. (2011). *İşletmelerde öğrenen örgütler ve iş verimliliği ilişkisinin analizi: Otel işletmelerinde bir uygulama* (Unpublished master's thesis). İstanbul Ticaret University, İstanbul.

Bal, Ö. (2011). *İlköğretim okullarında görev yapan okul yöneticisi ve öğretmenlerin öğrenen örgüt olarak okullarına ilişkin algıları* (Unpublished master's thesis). Yıldız Teknik University, İstanbul.

Barutçugil, İ. (2004). *Stratejik insan kaynakları yönetimi*. İstanbul: Kariyer Yayınları.

Berman, N. G., & Parker, R. A. (2002). Meta-analysis: Neither quick nor easy. *BMC Medical Research Methods*, *2*(10). doi:10.1186/1471-2288-2-10

Bilir, B. (2014). *Öğretmenlerin öğrenen örgüte ilişkin algı düzeyleri ile yöneticilerinin liderlik stilleri arasındaki ilişkinin araştırılması* (Unpublished master's thesis). Çanakkale Onsekiz Mart University, Çanakkale.

Borenstein, M., Hedges, L. V., Higgins, J. P. T., & Rohtstein, H. R. (2013). *Meta-analize giriş* (S. Dinçer, Trans.). Ankara: Anı Yayıncılık.

Boyacı, M. (2007). *Öğrenen organizasyon: Teorik bir yaklaşım* (Unpublished master's thesis). Kahramanmaraş Sütçü İmam University, Kahramanmaraş.

Cabrera, J. A., & Higgins, J. P. T. (2010). Graphical displays for meta-analysis: An overview with suggestions for practice. *Research Synthesis Method, 1*, 66-80. doi:10.1002/jrsm.6

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). New Jersey: Lawrence Erlbaum Associates, Inc.

Cohen, L., Manion, L., & Morrison, K. (2007). *Research methods in education* (6th ed.). New York: Routledge.

Coşun, B. P. (2008). *Yönetici ve öğretmen algılarına göre ilköğretim okullarının örgütsel öğrenme düzeylerinin incelenmesi* (Unpublished master's thesis). Ege University, İzmir.

Çalık, T. (2010). Öğrenen örgütler olarak eğitim kurumları. *Kırgızistan- Türkiye Manas Üniversitesi Sosyal Bilimler Dergisi*, *8*, 121-128.

Çalkavur, E. (2005). *Öğrenen organizasyon uygulama takımları sponsor el kitabı* (1th ed.). İstanbul: Ayhan Matbaası.

Çelik, V. (2003). *Eğitimsel liderlik.* Ankara: Pegem A.

DeCoster, J. (2004). *Meta-analysis notes.* Retrieved May 15, 2015, from http://www.stat-help.com/notes.html

Dedehayır, H. (2006). Nihai amaç: Öğrenen organizasyon. *Kaynak Dergisi, 26*.

Demirci, M. K., Taşkın, E., & Yuca, U. (2006). Öğrenen örgüt/pazarlama yönelimli öğrenen okul boyutlarının analizi: Kütahya ili özel eğitim kurumları uygulaması. *Akademik Bakış Uluslararası Hakemli Sosyal Bilimler E-Dergisi, 9*, 1-12.

Dinçer, S. (2014). *Eğitim bilimlerinde uygulamalı meta analiz.* Ankara: PegemA Yayıncılık

Elma, C., & Demir, K. (Ed.). (2000). *Yönetimde çağdaş yaklaşımlar, uygulamalar ve sorunlar.* Ankara: Anı Yayıncılık.

Ensari, H. (1998). Öğrenen organizasyon olarak okul. *M.Ü. Atatürk Eğitim Fakültesi Eğitim Bilimleri Dergisi*, *3(*2), 111-123.

Erdem, M., İlgan, A., & Uçar, H. İ. (2014). Relationship between learning organization and job satisfaction of primary school teachers. *International Online Journal of Educational* Sciences, *6*(1), 8-20. doi:10.12738/estp.2013.3.1693

Erdoğan, E. (2000). *Okul yönetimi ve öğretim liderliği.* İstanbul: Sistem Yayınları.

Erigüç, G., & Balçık, P. Y. (2007). Öğrenen örgüt ve hemşirelerin değerlendirmelerine yönelik bir uygulama. *Hacettepe Sağlık İdaresi Dergisi, 10*(1), 75-106.

Fındıkcı, İ. (1996). Öğreten okuldan öğrenen okula. *Yeni Türkiye, 7*.

Gödek, S. (2001). *Bürokratik örgütün, öğrenen organizasyona dönüşüm sürecinde liderliğin rolü* (Unpublished master's thesis). Afyon Kocatepe University, Institute of Social Sciences, Afyonkarahisar.

Gökyer, N. (2011). Teachers' perceptions of learning school conception. *International Online Journal of Educational Sciences, 3*(3), 998-1020.

Gözüyeşil, E., & Dikici, A. (2014). Beyin temelli öğrenmenin akademik başarıya etkisi: Bir meta-analiz çalışması. *Kuram ve Uygulamada Eğitim Bilimleri, 14*(2), 629-648.

Güleş, H. (2007). *İstanbul ili Bayrampaşa ilçesindeki resmi ilköğretim okulu yönetici ve öğretmenlerinin öğrenen organizasyona ilişkin algıları* (Unpublished master's thesis). Yeditepe University, İstanbul.

Günbayı, İ., & Akdeniz, C. (2007). İlköğretim okulu öğretmenlerinin öğrenen örgüt yaklaşımına ilişkin görüşleri üzerine bir araştırma. *Milli Eğitim, Eğitim ve Sosyal Bilimler Dergisi*, *36,* 173-192.

Higgins, J. P. T., Thompson, S. G., Deeks, J. J., ve Altman, D.G. (2003). Measuring inconsistency in meta-analyses. *British Medical Journal, 327*, 557-560. doi:10.1136/bmj.327.7414.557

Höffler, T., & Leutner, D. (2007). Instructional animation versus static pictures: A meta-analysis. *Learning and Instruction*, *17*(6), 722-738. doi:10.1016/j.learninstruc.2007.09.013

Jafari, P., & Kalanaki, M. (2012). Relationship between the dimensions of learning organization and readiness-to-change. *Procedia - Social and Behavioral Sciences, 46*, 5811-5815. doi:10.1016/j.sbspro.2012.06.520

Karadurmuş, M. (2012). *İlköğretim okullarının öğrenen örgüt olma özellikleri açısından incelenmesi (Uşak ili örneği)* (Unpublished master's thesis). Uşak University, Uşak.

Kılıç, F. (2009). *Ortaöğretim kurumlarında görev yapan yönetici ve öğretmenlerin öğrenen örgüte ilişkin algı düzeyleri (Bolu ili örneği)* (Unpublished master's thesis). Abant İzzet Baysal University, Bolu.

Kış, A., ve Konan, N. (2014). Okul müdürlerinin öğretimsel liderlik davranışlarını gösterme düzeylerine ilişkin sınıf ve branş öğretmenlerinin görüşleri: Bir meta-analiz. *Eğitim ve Öğretim Araştırmaları Dergisi*, *3*(1), 359-374.

Kocoğlu, I., İmamoğlu, S. Z., & İnce, H. (2011). The relationship between organizational learning and firm performance: The mediating roles of innovation and TQM. *Journal of Global Strategic Management*, *5*(1), 72-88.

Kontoghiorges, C., Awbrey, S. M., & Feuring, P. L. (2005). Examining the relationship between learning organization characteristics and change adaptation, innovation, and organizational performance. *Human Resource Development Quarterly*, *16*(2), 185-212. doi:10.1002/hrdq.1133

Long, J. (2001). *An introduction to and generalization of the fail-safe n. annual meeting of the southwest educational research association.* Paper presented at the Annual Meeting of the Southwest Educational Research Association, New Orleans, LA.

Memduhoğlu, H. B., & Kuşci, E. (2012). Yönetici ve öğretmenlerin algılarına göre ilköğretim okullarında örgütsel öğrenme. *İlköğretim Online, 11*(3), 748-761.

Menteşe, S. (2013). İlköğretim öğretmenlerinin öğrenen örgüte ilişkin görüşleri. *International Journal of Social Science, 6*(3), 451-478.

Öneren, M. (2008). İşletmelerde öğrenen örgütler yaklaşımı. *ZKÜ Sosyal Bilimler Dergisi*, *4*(*7*), 163-178.

Özden, Y. (2002). *Eğitimde yeni değerler (*5th ed.). Ankara: Pegem Yayıncılık.

Özsoy, S., & Özsoy, G. (2013). Eğitim araştırmalarında etki büyüklüklerinin raporlanması. *İlköğretim Online Dergisi*, *12*(2), 334-346.

Recepoğlu, E. (2013). Analyzing teachers' perceptions on learning organizations in terms of different variables. *Procedia - Social and Behavioral Sciences, 93*, 618-623. doi:10.1016/j.sbspro.2013.09.249

Sarıer, Y. (2013). *Eğitim kurumu müdürlerinin liderliği ile okul çıktıları arasındaki ilişkilerin meta-analiz yöntemiyle incelenmesi* (Unpublished doctoral thesis). Eskişehir Osmangazi University, Eskişehir.

Senge, P. M. (2011). *Beşinci disiplin* (A. İldeniz, & A. Doğukan, Trans.). İstanbul: Yapı Kredi Yayınları.

Subaş, A. (2010). *İlköğretim okullarında çalışan sınıf ve branş öğretmenlerinin öğrenen örgütü (okulu) algılamaları* (Unpublished master's thesis). Marmara University, Institute of Educational Sciences, İstanbul.

Şen, S., & Akbaş, N. (2016). Çok düzeyli meta-analiz yöntemleri üzerine bir çalışma. *Eğitimde ve Psikolojide Ölçme ve Değerlendirme Dergisi, 7*(1), 1-17.

Tacar, K. D. (2013). *İlkokul öğretmenlerinin öğrenen örgütü algılama düzeyleri ile örgüt sağlığı arasındaki ilişki* (Unpublished master's thesis). Yeditepe University, Institute of Social Sciences, İstanbul.

Tuna, M. R. (2014). *Ortaokul müdürlerinin kültürel liderlik rolünün öğrenen okul düzeyine etkisi (İstanbul - Beykoz örneği)* (Unpublished master's thesis). İstanbul Aydın University, Institute of Social Sciences, İstanbul.

Tuncer, M. ve Dikmen, M. (2017). İşbirlikli öğrenmenin başarıya etkisi: Çalışma grubu ile etki büyüklüğü arasındaki ilişkiye dair bir meta analiz çalışması. *Journal of Human Sciences, 14*(1), .473-485.

Uysal, R. (2008). *İlköğretim okulu öğretmenlerinin örgütsel öğrenme algıları* (Unpublished master's thesis). Yeditepe University, Institute of Social Sciences, İstanbul.

Üstün, U., & Eryılmaz, A. (2014). Etkili araştırma sentezleri yapabilmek için bir araştırma yöntemi: Meta-analiz. *Eğitim ve Bilim, 39*(174), 1-32. doi:10.15390/EB.2014.3379

Yaghoubi, M., Raesisi, A. R., Afshar, M., Yamohammadin, M. H., Hasanzedeh, A., Jvazi, M., & Ansary, M. (2010). The relationship between learning organization and organization commitment among nursing managers in educational hospitals of Isfahan university of medicine sciens in 2008-9. *Iran J. Nurs Midwifery Res., 15*(2), 8389.

Yang, B., Watkins, K. E., & Marsick, V. J. (2004). The construct of the learning organization: Dimensions, measurement and validation. *Human Resource Development Quarterly*, *15*(1), 31-55.

Yıldız, H. (2011). *Kamu ve özel ilköğretim kurumlarında çalışan öğretmenlerin öğrenen örgüte ilişkin algıları: Balıkesir ili örneği* (Unpublished master's thesis). Balıkesir University, Institute of Social Sciences, Balıkesir.

Appendix 1. Studies Included in the Meta-Analysis

Alanoğlu, M. (2014). *Ortaöğretim kurumlarının örgütsel öğrenme düzeylerinin okul etkililiği ve örgütsel vatandaşlık davranışlarına etkisi* (Unpublished master's thesis). Fırat University, Elazığ.

Bal, Ö. (2011). *İlköğretim okullarında görev yapan okul yöneticisi ve öğretmenlerin öğrenen örgüt olarak okullarına ilişkin algıları* (Unpublished master's thesis). Yıldız Teknik University, İstanbul.

Bilir, B. (2014). *Öğretmenlerin öğrenen örgüte ilişkin algı düzeyleri ile yöneticilerinin liderlik stilleri arasındaki ilişkinin araştırılması* (Unpublished master's thesis). Çanakkale Onsekiz Mart University, Çanakkale.

Coşun, B. P. (2008). *Yönetici ve öğretmen algılarına göre ilköğretim okullarının örgütsel öğrenme düzeylerinin incelenmesi* (Unpublished master's thesis). Ege University, İzmir.

Eğmir, E. (2012). *Okul yöneticilerinin koçluk özelliklerinin okulun öğrenen organizasyon olmasındaki etkilik düzeyi* (Unpublished master's thesis). Afyon Kocatepe University, Afyon.

Gökyer, N. (2011). Teachers' perceptions of learning school conception. *International Online Journal of Educational Sciences, 3*(3), 998-1020.

Güleş, H. (2007). *İstanbul ili Bayrampaşa ilçesindeki resmi ilköğretim okulu yönetici ve öğretmenlerinin öğrenen organizasyona ilişkin algıları* (Unpublished master's thesis). Yeditepe University, İstanbul.

Günbayı, İ., & Akdeniz, C. (2007). İlköğretim okulu öğretmenlerinin öğrenen örgüt yaklaşımına ilişkin görüşleri üzerine bir araştırma. *Milli Eğitim, Eğitim ve Sosyal Bilimler Dergisi*, *36*, 173-192.

Karadurmuş, M. (2012). *İlköğretim okullarının öğrenen örgüt olma özellikleri açısından incelenmesi (Uşak ili örneği)* (Unpublished master's thesis). Uşak University, Uşak.

Kılıç, F. (2009). *Ortaöğretim kurumlarında görev yapan yönetici ve öğretmenlerin öğrenen örgüte ilişkin algı düzeyleri (Bolu ili örneği)* (Unpublished master's thesis). Abant İzzet Baysal University, Bolu.

Menteşe, S. (2013). İlköğretim öğretmenlerinin öğrenen örgüte ilişkin görüşleri. *International Journal of Social Science, 6*(3), 451-478.

Memduhoğlu, H. B., & Kuşci, E. (2012). Yönetici ve öğretmenlerin algılarına göre ilköğretim okullarında örgütsel öğrenme. *İlköğretim Online, 11*(3), 748-761.

Recepoğlu, E. (2013). Analyzing teachers' perceptions on learning organizations in terms of different variables. *Procedia - Social and Behavioral Sciences, 93*, 618-623. doi:10.1016/j.sbspro.2013.09.249

Subaş, A. (2010). *İlköğretim okullarında çalışan sınıf ve branş öğretmenlerinin öğrenen örgütü (okulu) algılamaları* (Unpublished master's thesis). Marmara University, Institute of Educational Sciences, İstanbul.

Tacar, K. D. (2013). *İlkokul öğretmenlerinin öğrenen örgütü algılama düzeyleri ile örgüt sağlığı arasındaki ilişki* (Unpublished master's thesis). Yeditepe University, Institute of Social Sciences, İstanbul.

Tuna, M. R. (2014). *Ortaokul müdürlerinin kültürel liderlik rolünün öğrenen okul düzeyine etkisi (İstanbul - Beykoz örneği)* (Unpublished master's thesis). İstanbul Aydın University, Institute of Social Sciences, İstanbul.

Uysal, A. Ç. (2005). *Okul öncesi eğitim kurumlarında görev yapan yönetici ve öğretmenlerin öğrenen organizasyona ilişkin algıları* (Unpublished master's thesis). Selçuk University, Institute of Social Sciences, Konya.

Uysal, R. (2008). *İlköğretim okulu öğretmenlerinin örgütsel öğrenme algıları* (Unpublished master's thesis). Yeditepe University, Institute of Social Sciences, İstanbul.

Üstün, A., & Menteşe, S. (2013). Teachers' views on what extent the primary schools have the characteristics of learning organizations and on blocks. *E-International Journal of Educational Research, 4*(2), 78-98.

Yıldız, H. (2011). *Kamu ve özel ilköğretim kurumlarında çalışan öğretmenlerin öğrenen örgüte ilişkin algıları: Balıkesir ili örneği* (Unpublished master's thesis). Balıkesir University, Institute of Social Sciences, Balıkesir.