

Received: February 17, 2020

Accepted: April 5, 2020

<http://dergipark.org.tr/rep>

e-ISSN: 2602-3733

Copyright © 2020

April 2020 • 4(Special Issue) • 1-17

*Research Article*

## Investigation of the Relationship between School Culture and Job Satisfaction: A Meta-Analysis Study\*

Ahmet Turan Kurşun<sup>1</sup>

*Ministry of Education*

Ercan Yılmaz<sup>2</sup>

*Necmettin Erbakan University*

### Abstract

This study was conducted to investigate the relationship between school culture and job satisfaction. In the research, a quantitative research method, meta-analysis method, was used to determine the effect of job satisfaction on school culture based on the results of the studies on the relationship between school culture and job satisfaction. In this context, the studies conducted in national and international master and doctorate theses and refereed journals between 01.01.2007 and 31.12.2017 were searched and effect size was calculated from 21 studies based on the relationship between school culture and job satisfaction. The results of the study showed that there was a positive, significant and moderate effect size ( $Z_r = 0.405$ ) between school culture and job satisfaction.

### Key Words

School culture • Job satisfaction • Effect size

\*This research is based on the first author's doctoral dissertation.

<sup>1</sup> **Correspondance to:** Ahmet Turan Kurşun, Ministry of Education, Konya Science and Art Centre, Konya, Turkey. Email: atrnkursun@gmail.com **ORCID:** 0000-0002-0012-1924

<sup>2</sup> Department of Education Sciences, Necmettin Erbakan University, Konya, Turkey. Email:ercanyilmaz70@gmail.com **ORCID:** 0000-0003-4702-1688

**Citation:** Kurşun, A. T., & Yılmaz, E. (2020). Investigation of the relationship between school culture and job satisfaction: A meta-analysis study. *Research on Education and Psychology (REP)*, 4(Special Issue), 1-17.

The organizational culture, which is at the centre of organizational life, has been one of the main subjects of both academic and educational research alongside management practices. In this context, culture is at the centre of management in an organization and plays an important role in understanding organizational processes, social events, processes and behaviours (Alvesson, 2012).

Schools, like other organizations, have their own personalities and characteristics. This creates the school culture and the culture of each school is determined by individual and collective beliefs and values. School culture shows itself in applications (ceremonies, rituals and ceremonies), communication (stories, legends, symbols and slogans), physical features (location and style of school buildings, fixtures, equipment) and common language (common expressions or jargon for school). A strong school culture both contributes to the development of the educational system and leads to innovation in all units of the school through sharing. In addition, the school culture provides the opportunity to realize the wealth of resources in and around the school and to guarantee the learning experience. For all these reasons, school principals need to create a shared school culture (Blandford, 2006). In order for schools to survive in the 21st century, people in the school need to maintain and develop the school culture, which is made up of their own belief systems, where they can feel comfortable (Blum, 2006).

It is a network of school culture, a strong rituals, traditions, norms and values that are felt in every corner of the school life, consisting of unwritten and social expectations, affecting almost everyone in the school, including teachers, students and administrators, their thoughts, feelings and actions (Peterson & Deal, 2002). The school culture, which affects behaviour, expectations and relationships between teachers, students, administrators and parents, is also referred to as the personality of the school. This personality consists of unwritten rules and unspoken beliefs about how school members do their work and what they think about their work (Kaplan & Owins, 2013).

Ensuring autonomy and accountability both at the school and preventing the status quo at school by clarifying the basic beliefs that make up the school culture, creating a shared vision based on these core beliefs, defining the gap between the current reality of the school and the shared vision and filling this gap with innovation, creating an action plan that supports teachers. and contributes to the formation of a functioning system based on personnel development (Zmuda, Kuklis, & Kline, 2004). This situation shows us that school culture prevents the status quo and contributes significantly to the change and development of the school.

A school culture that ensures teachers' job satisfaction and organizational commitment contributes to all students' meaningful and significant learning. Therefore, it is important to create a school culture where the constructor is encouraged to communicate with each other and where the employees have high job satisfaction (Gunnell, 2000).

Some people like their job very much and put it in the centre of their life. Some people hate their job and work only because they have to work. In this context, job satisfaction, which is a concept related to whether the employee likes his job or not, is a feature and a part of the job. Salary, additional payments, unexpected rewards, organizational activities, colleagues, the nature of work, communication, and other benefits to the individual are characteristics of the job and affect job satisfaction (Spector, 1997).

The nature of one's work in the organization is shaped by the degree of being satisfied with the job based on their own experience. A good job is often defined by employees by having the features that meet expectations, preferences and needs. These attributes also constitute subjective indicators of job satisfaction (Skjørshammer, 1979).

Increasing internal job satisfaction and motivation in the school depends on the fact that employees see themselves as members of a strong culture, find their work meaningful and valuable, and feel important. The fact that teachers find their work meaningful not only gives a special value to the work they do, but also causes their inner motivation to increase (Sergiovanni, 2005). Based on these explanations, it is believed that creating a culture created in the school and shared by everyone and creating an environment that will make teachers feel their work meaningful serves high job satisfaction.

Organizational culture reflects the expectations, behavioural norms, values and attitudes of its members in an organization. Beliefs and values shared by all members are characteristic of organizational culture. In this context, a strong school culture with these features is expected to increase job satisfaction in the organization. Increasing job satisfaction also contributes positively to the development of organizational commitment (Joharis, 2017). Experiences, beliefs and actions constitute the school culture. Culture is in a way an indicator of how things work. The job satisfaction of the employees, who gradually adapt to the existing culture, is also determined by the culture. If the culture is strong, job satisfaction is also high (Lenox, 1999).

When the studies carried out with the relevant meta-analysis method including school culture in the literature are examined, it is seen that the relationship between school culture and student achievement, (Bektas, Çogaltay, Karadag, & Ay, 2015), the effects of teachers' gender on school culture (Ipek, Aytaç, & Gok, 2015), the relationship between organizational culture and intrinsic motivation and employee performance (Radakovich, 2016) are the purposes of analysing. When the studies carried out with the meta-analysis method based on the relationship between job satisfaction and culture are examined, it is seen that the purposes of the analysing are the relationship between organizational culture and job satisfaction in Korean nurses (Chung & Ahn, 2019), the effect of the role of national culture in organizational commitment and job satisfaction (Choi & Choi, 2019). The study carried out with meta-analysis method based on the relationship between school culture and job satisfaction of teachers and school administrators is not found.

In this study, it was aimed to examine the relationship between school culture and job satisfaction of teachers and school administrators. In line with this purpose, the researches to determine the relationship between school culture and job satisfaction between 2007-2017 were examined and the direction and level of the effect size based on this relationship were determined.

### **Method**

In the research, meta-analysis method, which is one of the quantitative research methods, was used to determine the effect size based on the results of the studies conducted relationally between school culture and job satisfaction. In meta-analysis, which is a quantitative and formal research method, the aim is to reach the results by systematically evaluating the previous studies (Haidich, 2010). Meta-analysis, which means analysis to combine the results obtained from different studies and to obtain a general result, also means to re-analyze the results (Dinçer, 2014). It is provided to increase and reinforce the statistical significance of the subject

investigated in the meta-analysis, if there is any inconsistency between the results, to investigate with reasons for determining this, to measure the effect size and to determine the parameter estimates with confidence intervals (Çarkungöz & Ediz, 2009).

In order to reach the aim of the research, articles published in national and international refereed journals between 01.01.2017 - 31.12.2017, master's and doctoral theses were scanned, and studies carried out with quantitative research method based on the relationship between school culture and job satisfaction were included in the scope for meta-analysis. During the screening process, the words "organizational culture, school culture, school culture, organizational culture, organization / organization culture, culture of organization / organization, school culture, culture of school, culture at school, culture in school, school's culture" were used as keywords. The studies that are reached in this way are related to job satisfaction and are included in the scope of the research.

### **Inclusion Criteria**

Including all the researches reached by scanning the literature in the scope of meta-analysis requires the selection of these studies according to the inclusion criteria determined by the researcher, as this may cause erroneous results (Kablan, Topan, & Erkan, 2013). The inclusion criteria set for the research are as follows:

1. Articles, master and doctoral theses in national and international refereed journals between January 01, 2007 and December 31, 2017.
2. Researches carried out at the level of teachers and / or administrators in public and private pre-primary education institutions, primary schools, secondary schools and high schools in relation to school culture.
3. Studies examining the relationship between school culture and job satisfaction.
4. Studies that have the following data from researches related to school culture.
  - a. Number of Samples (n).
  - b. Correlation Value (r).

### **Exclusion Criteria**

In addition to the inclusion criteria, the criteria indicating the studies to be excluded from the analysis should be determined in the meta-analysis method (Whitehead, 2002). Exclusion criteria for the research are determined as follows:

1. Apart from the teacher and administrator sampling (students, parents, teachers and non-executive education staff, university lecturers / staff, lecturers, research assistants, etc.),
2. Article and paper studies produced from thesis research,
3. Studies without appropriate statistical data or without adequate statistical analysis are not included in the meta-analysis.

### Interpretation of Data

In order to calculate the effect size based on the correlation between school culture and job satisfaction for the research, the effect sizes were converted into Fisher's Z scale by using the "r" coefficients and sample numbers (n) included in the study. CMA (Comprehensive Meta-Analysis) program was used for all analyses.

The classification of [Cohen, Manion and Morrison \(2007\)](#) was used in the interpretation of the calculated Fisher's Z effect size. This classification is as follows

$\pm 0.00 - \pm 0.10$  Between: Weak

$\pm 0.10 - \pm 0.30$  Between: Low

$\pm 0.30 - \pm 0.50$  Between: Medium

$\pm 0.50 - \pm 0.80$  Between: Strong

$\geq \pm 0.80$ : Very Strong.

### Findings

Based on the relationship between school culture and job satisfaction, 21 studies have been reached to calculate the effect size. 14.29% of Investigation (k = 3) in Turkey is 85.71% (k = 18) were made outside Turkey. 14.29% (k = 3) master thesis, 28.57% (k = 6) doctoral thesis and 57.14% (k = 12) of the studies were prepared as articles. 4.76% (k = 1) of the studies are in pre-primary education institution, 9.52% (k = 2) in primary schools, 28.57% (k = 6) in secondary schools, 33.33% (k = 7) in high schools and 19.05% (k = 4) was made together in primary, secondary and high schools. In addition, although the study was conducted in schools that meet the inclusion criteria, the type of school was not specified in a study. In order to determine which model to calculate the effect sizes based on the relationship between school culture and job satisfaction, homogeneity analyses were conducted and the results are given in Table-1.

Table 1.

*School Culture and Job Satisfaction - Homogeneity Test, Q, I<sup>2</sup> and Tau-Squared Statistics Results*

Q Value	df (Q)	P	I <sup>2</sup>	$\tau^2$
691.356	20	0.000	97.11	0.073

Q statistic is a method that has been used for many years in order to detect heterogeneity in meta-analysis ([Bowden, Tierney, Copas, & Burdett, 2011](#)). In this context, as a result of the homogeneity test, 691.356 Q value, calculated with 20 degrees of freedom, was found at a statistically significant ( $p < .05$ ) level. The Q value (691.356) obtained from the homogeneity test was found to be statistically significant and that the chi-square distribution was greater than the value corresponding to 20 degrees of freedom for a 95% confidence interval. In addition, the value of tau-square ( $\tau^2$ ), which estimates the variance of the effect size, was calculated as 0.073 and the I<sup>2</sup> statistic as 97.11. This calculated I<sup>2</sup> value shows that we can explain 97.11% of the variance in the effect size calculated in the studies with the variables we have. Based on these data, the effect size calculation based on the relationship between school culture and the job satisfaction levels of administrators and teachers based on

their perceptions of teachers and teachers was made according to the random effects model and the results are presented in Table-2.

Table 2.

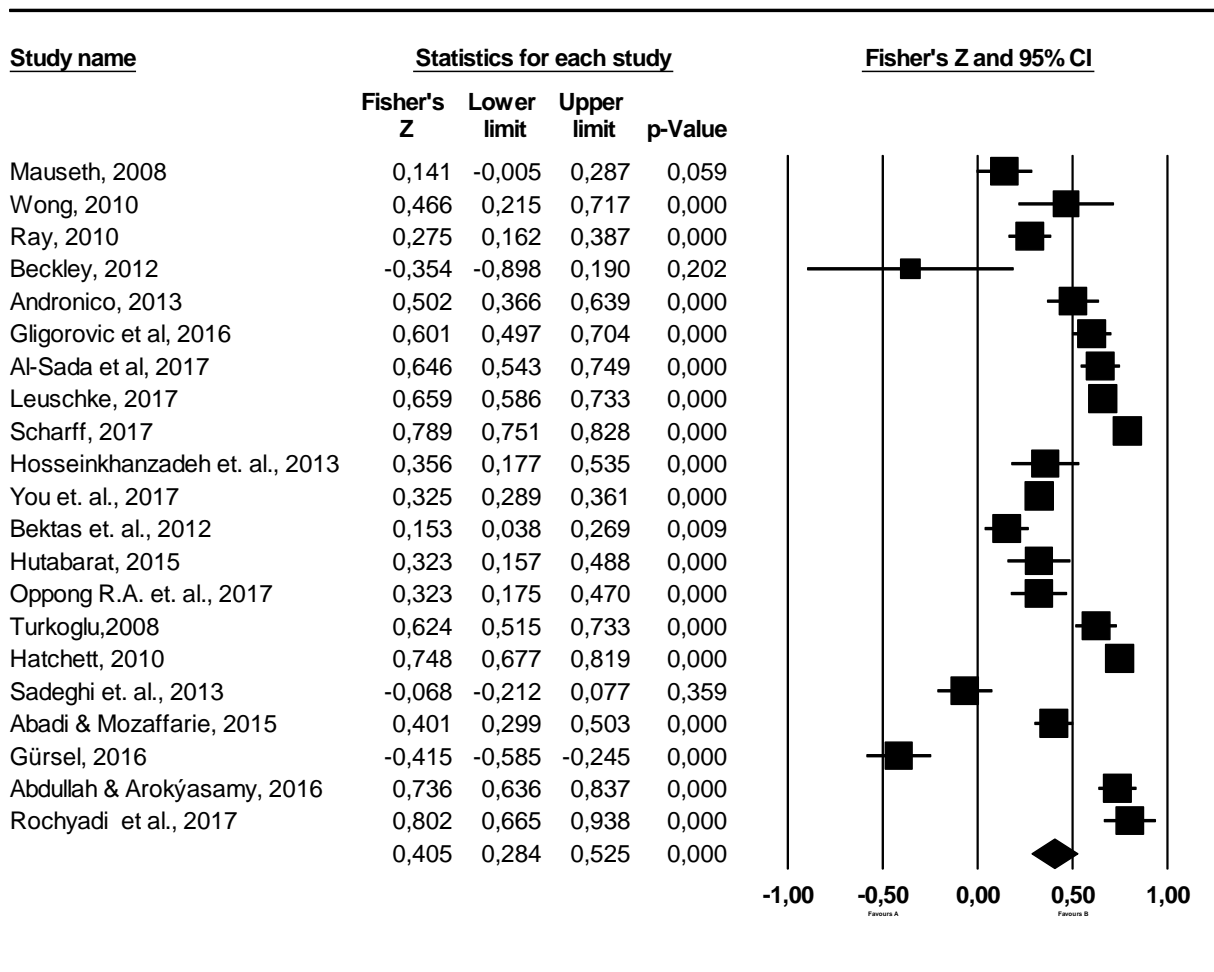
*Effect Size- between School Culture and Job Satisfaction According to the Random Effects Model*

k	r	Z <sub>r</sub>	n	Variance	95% Confidence Interval for Fisher's Z Impact Sized		Z	p
					Lower Limit	Upper limit		
21	0.384	0.405	10837	0.004	0.284	0.525	6.578	0.000

Fisher's Z value was calculated as 0.405 for the effect size based on the relationship between school culture and job satisfaction. In the light of this information, it can be said that there is a positive, significant ( $p < .05$ ) and moderate effect size between school culture and job satisfaction according to the random effects model. The forest graph of these calculated values is also included in Chart-1.

Chart 1.

*Fisher's Z Effect Sizes Based on the Relationship between School Culture and Job Satisfaction Forest Plot*



As can be seen in Chart-1, Fisher's Z effect size between school culture and job satisfaction was calculated as 0.405 according to the random effects model. Looking at Chart-1, it is seen that 3 of the effect sizes are negative and 18 are positive.

For the effect size calculated based on the relationship between school culture and job satisfaction, moderator analyses were made according to the type of publication, school type, place of study, sampling method and sampling level, and the results are given in Table-3.

Table 3.

*Effect Size-Moderator Analysis Results for the Relationship between School Culture and Job Satisfaction According to Random Effect Model*

Variable	k	Z <sub>r</sub>	Lower Limit	Upper Limit	Q	Q <sub>b</sub>	p
Job Satisfaction	21	0.405	0.284	0.525	691.35		0.000
Moderator [Research Type]						0.221	0.895
Article	12	0.424	0.296	0.551			
Master Thesis	3	0.295	-0.227	0.818			
Doctoral Thesis	6	0.421	0.197	0.644			
Moderator [Research Location]						1.361	0.243
Turkey	3	0.124	-0.417	0.665			
Abroad	18	0.454	0.334	0.574			
Moderator [School]						13.55	0.009
Primary and Middle School	3	0.404	0.080	0.728			
Middle School	6	0.287	0.013	0.562			
High School	7	0.542	0.376	0.709			
Primary-Middle- Unspecified	4	0.423	0.182	0.664			
Unspecified	1	0.141	-0.005	0.287			
Moderator [Sampling Method]						4.300	0.231
Random	7	0.409	0.135	0.683			
Cluster	3	0.276	0.156	0.397			
Layer	2	0.323	0.213	0.433			
Unspecified	9	0.473	0.320	0.627			
Moderator [Sampling Level]						8.646	0.013
Teacher	15	0.465	0.327	0.602			
Director	1	-0.354	-0.898	0.190			
Director - Teacher	5	0.299	-0.016	0.613			

According to the results of the moderator analysis conducted, no significant difference was found according to the type of studies conducted, the place of study and the sampling method for the effect size calculated based on the relationship between school culture and job satisfaction ( $p > .05$ ). According to the school type and sampling level of the study, a significant difference was found ( $p < .05$ ). The data show that the highest effect

size was obtained from studies conducted in high schools, and the lowest effect size was obtained from a study without specifying school type. The highest effect size according to the sampling level was calculated from the research conducted with teachers.

### Publication Bias Analysis

According to the meta-analysis findings based on the relationship between school culture and job satisfaction, analyses and explanations made for the purpose of evaluating publication bias are included under this heading.

Table 4.

*For Publication Bias Analysis of the Effect Sizes Calculated for the Relationship between School Culture and Job Satisfaction Rosenthal's Fail Safe N*

<b>k</b>	<b>Z</b>	<b>p</b>	<b><math>\alpha</math></b>	<b><math>Z_{\alpha}</math></b>	<b>Number of Missing that would Bring p value &gt; to alpha</b>
2	41.359	0.000	0.05	1.96	9330

The Rosenthal method used for bias analysis calculates the number of studies required to bring the effect size to the desired alpha level (usually 0.05). In addition, for the rejection of publication bias, the number of missing studies (NR) should be greater than the number calculated with the formula  $5k + 10$ . In other words, it is necessary to provide the formula  $NR > 5k + 10$  to say that there is no publication bias (Fragkos, Tsagris, & Frangos, 2014).

According to Rosenthal's Fail Safe N analysis findings, the number of studies required to reach 0.05 alpha level was calculated as 9330. This value indicates that there is a need for 9330 more studies so that the effect size of the research may fall below the 0.05 effect size value. The fact that this number is more than 10 times ( $N < 5k + 10$ ) of the 21 studies included in the research shows that there is no possibility of publication bias. In this context, since the number of missing studies is more than 115 ( $5 \times 21 + 10$ ), according to Rosenthal's Fail Safe N analysis, it is seen that there is no publication bias for studies whose effect size is calculated based on the relationship between school culture and job satisfaction.

Table 5.

*For Publication Bias Analysis of the Effect Sizes Calculated for the Relationship between School Culture and Job Satisfaction Orwin's Fail Safe N*

<b>Criteria</b>	<b>Value</b>
Fisher's Z in observed studies	0.523
Criterion for a 'trivial Fisher's Z	0.05
Mean Fisher's in missing studies	0.00
Number missing studies needed to bring Fisher's Z under 0.05	199



Another analysis made within the scope of publication bias analysis is Orwin's Fail Safe N analysis. This analysis is a method that calculates missing studies with a standard effect size (such as 0.1) determined by the researcher (Anderson, Froysheter, Tontz, 2013). According to the results of the analysis, Fisher's Z value of the observed studies on the relationship between school culture and job satisfaction was calculated as 0.523. Accordingly, in order for Fisher's Z value to reach 0.00, 199 studies with 0.05 effect size value should be included in the research. Based on these data, the studies whose effect size was calculated for the relationship between school culture and job satisfaction provided both the  $NR > 5k + 10$  equation formulated by Rosenthal's Fail Safe N analysis ( $199 > 5 \times 21 + 10$ ) and the number of missing studies (199) within the scope of meta-analysis. It can be said that there is no publication bias according to Orwin's Fail Safe N analysis since the number included ( $k = 21$ ) is much higher.

Table 6.

*Begg and Mazumdar Rank Correlation Analysis for Publication Bias Analysis of the Effect Sizes Calculated for the Relationship between School Culture and Job Satisfaction*

<b>Kendal's S</b>	<b>Tau</b>	<b>Z</b>	<b>p</b>
-73.00	-0.343	2.17	0.029

When Table-6 is examined, it is seen that the calculated Tau value ( $p < .05$ ) is statistically significant. The statistically significant Tau value in the sequence correlation of Begg and Mazumdar indicates publication bias. In this context, according to Begg and Mazumdar rank correlation analysis, it is noteworthy that there is publication bias.

Table 7.

*Egger Regression Intercept Analysis for the Publication Bias Analysis of the Effect Sizes Calculated for the Relationship between School Culture and Job Satisfaction*

<b>Intercept</b>	<b>SE</b>	<b>t</b>	<b>df</b>	<b>p</b>
-3.529	2.34	1.509	19	0.148

The absence of a statistically significant p value calculated in the Egger regression intercept analysis indicates that there is no publication bias for the studies included in the meta-analysis (Pietschnig, Penke, Wicherts, Zeiler, & Voracek, 2015; Rosenbaum et al., 2015; Yang & Niu, 2018). In this context, since the results are not statistically significant ( $p > .05$ ), it can be said that there is no publication bias according to the Egger regression intercept analysis.

Table 8.

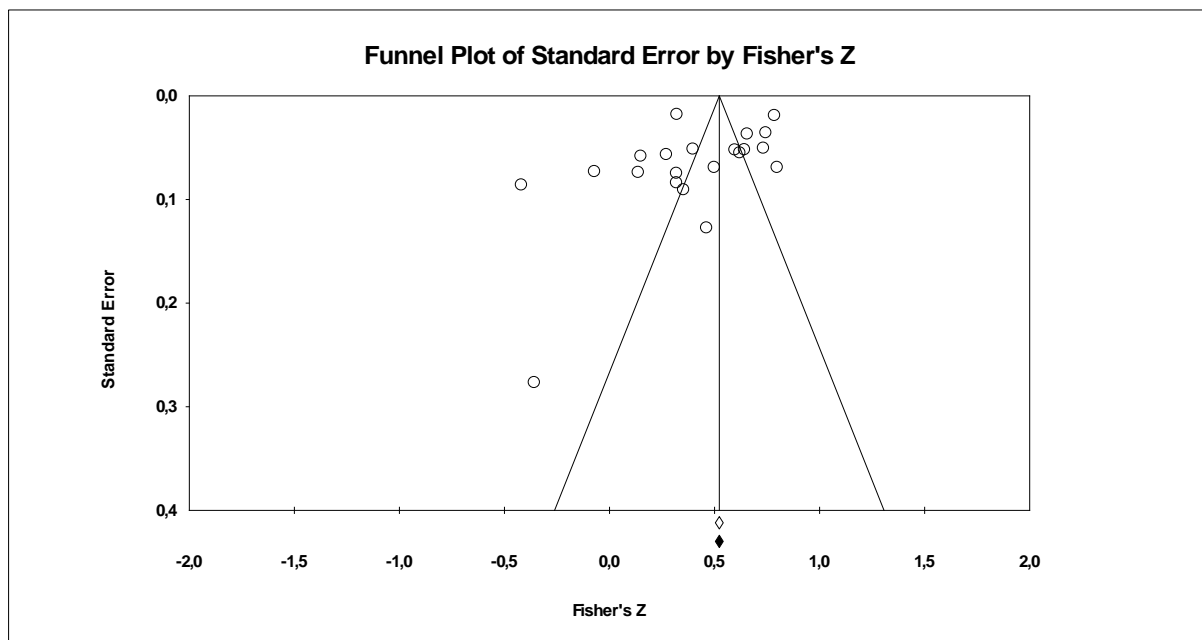
*Duval and Tweedie's Trim and Fill Analysis for Publication Bias Analysis of the Effect Sizes Calculated for the Relationship between School Culture and Job Satisfaction*

	Number of Missing Studies	Effect Size	Lower Limit	Upper Limit	Q Value
Observed Value		0.405	0.284	0.525	691.356
Adjusted Value	0	0.405	0.284	0.525	691.356

Finally, Duval and Tweedie's trim and fill analysis was carried out to evaluate publication bias. This analysis is an analysis showing the number of missing studies so that symmetry can be completed according to the distribution in the funnel plot of the studies. According to this analysis (Ebert et al., 2015), which estimates the number of missing studies and calculates the effect of these studies on the result, it is observed that there are no missing studies according to the random effects model to achieve symmetry. In addition, the funnel graph based on these values is included in Chart-2.

Chart 2.

*Duval and Tweedie's Trim and Fill Funnel Scatter Chart for Publication Bias Analysis of the Effect Sizes Calculated for the Relationship between School Culture and Job Satisfaction*



Symmetrical distribution of the studies according to the sample size is important in the evaluation of publication bias in the funnel scatter plot. The Duval and Tweedie's trim and fill funnel scatter plot created to see the symmetrical distribution of the studies shows that the studies included in the meta-analysis for school culture and job satisfaction are not incomplete according to the random effects model, so there is no publication bias within this analysis.

## Discussion and Conclusion

Research findings showed that there is a positive, meaningful and moderate relationship between school culture and job satisfaction of teachers and administrators. There are strong relationships between a healthy and strong school culture and student success, employee motivation, teachers' productivity and job satisfaction (Stolp, 1994). Organizational culture plays an important role in determining whether the working environment is happy and healthy. Culture is also effective in encouraging employees, intra-organizational communication, and attitudes and behaviours of employees (Tsai, 2011). Job satisfaction has an important place in the literature as it affects the behaviour of employees within the organization. Job satisfaction has a great impact not only on school culture but also on many variables such as employee motivation, productivity, and organizational citizenship behaviours (Nadiri & Tanova, 2010; Aziri, 2011).

Human resources are considered as the most important element of an organization. Job satisfaction increases when the needs and demands of the employees are met. Job satisfaction also helps employees to develop their potential and attitudes towards work. Since the success of an employee who satisfies his job is also the success of the organization (Tripathi & Goel, 2015), it is an expected result that will affect the school culture positively and overlaps with the results of this research.

Organizational culture, which plays a strong role in ensuring job satisfaction of teachers, is shaped by both employees and managers. The positive culture perceived by both the employees and the administrators has a positive and significant effect on teachers' job satisfaction in any case (Sabri, Ilyas, & Amjad, 2011). A strong school culture increases job satisfaction and teachers who provide job satisfaction affect student success positively (Bauman, 2013). It is a natural result that the school culture, which is perceived positively by teachers, increases teachers' job satisfaction. In this context, it is considered important to establish a strong school culture that increases both job satisfaction and student success.

You, Kim, and Lim (2017) found a positive correlation between school culture and teachers' job satisfaction in their research in order to determine the school culture and other factors that affect teachers' job satisfaction. In the research conducted by Abdullah and Arokiasamy (2016) to determine the relationship between job satisfaction and school culture, a high level of relationship was found between the job satisfaction of secondary school teachers and administrators and school culture. In the research conducted by Simorangkir, Siburian, and Rahman (2018), it was concluded that the organizational culture was directly and positively effective on the job satisfaction of primary school principals. This research showed that the stronger the culture of primary schools, the higher the job satisfaction of the employees. When the results of the aforementioned researches are examined, the striking point is the strengthening of the school culture and the increase in the job satisfaction of teachers and administrators. It is seen that the results of these studies are in line with the results of this study.

School culture develops with the support and contribution of teachers and administrators. This culture is shaped by teachers' job satisfaction and career plans, employee relations and leadership of school principals (Johnson, Kraft & Papay, 2011). The collaborative work of teachers improves their communication and job satisfaction with their colleagues, which contributes positively to the school culture (Joseph, 2016). School culture increases students' academic success, improves teachers' attitudes and job satisfaction, and provides morale to them (Edwards, Green, Lyons, Rogers, & Swords, 1998). It seems that the development of teacher job satisfaction of a strong school culture based on cooperation, communication and shared values also coincides

with the results of this research. A healthy and strong school culture is expected to increase student achievement, improve employee morale, collaboration skills and job satisfaction, and contribute to the achievement of the school's goals.

When the effect sizes based on the relationship between school culture and job satisfaction were examined at the moderator level, a significant difference was found according to the school type and sample level. According to this, it is seen that the effect sizes calculated from the studies conducted with teachers according to the type of school in high schools and sampling level are higher than the other levels. In addition, all publication bias analyzes, except for Begg and Mazumdar rank correlation analysis, showed that there was no publication bias for this study, which was carried out with the meta-analysis method based on the relationship between school culture and job satisfaction.

In summary, based on the relationship between school culture and job satisfaction, the effect size calculated by the meta-analysis method was found to be positive, meaningful and moderate. These results can be interpreted as the satisfaction of teachers and administrators increases moderately as the school culture gets stronger. Necessary measures can be taken through practices such as creating a strong school culture based on the findings obtained within the scope of the research, improving working conditions in order to increase the job satisfaction and motivation of the employees, ensuring work peace, making the school environment more attractive for teachers, organizing activities where teachers will feel valuable in the school.

## References

References starting with the star symbol (\*) show the studies included in the meta-analysis.

- \*Abdullah, A. G. K., & Arokiasamy, A. R. A. (2016). The influence of school culture and organizational health of secondary school teachers in Malaysia. *Journal-Technology Education Management Informatics*, 5(1), 56-59.
- \*Abedi, A., & Mozaffarie, F. A. (2015). Studying relationship of organizational culture with life satisfaction among teachers of first period high school from five districts of education in Tabriz City. *Journal of Social Studies*, 1(11), 212-218.
- Alvesson, M. (2012). *Understanding organizational culture*. London: Sage Publications Ltd.
- \*Al-Sada, M., Al-Esmael, B., & Faisal, M. N. (2017). Influence of organizational culture and leadership style on employee satisfaction, commitment and motivation in the educational sector in Qatar. *EuroMed Journal of Business*, 12(2), 163-188.
- Anderson, P. A., Froysheter, A. B., & Tontz, W. L. (2013). Meta- analysis of vertebral augmentation compared with conservative treatment for osteoporotic spinal fractures. *Journal of Bone and Mineral Research*, 28(2), 372-382.
- \*Andronico, K. B. (2013). *Building a positive culture for school improvement: Teachers' perceptions of assistant principals' departmental leadership* (Doctoral dissertation, Fordham University, New York, United States). Available from ProQuest Dissertations and Theses database. (UMI No. 3564138).
- Aziri, B. (2011). Job satisfaction: A literature review. *Management Research & Practice*, 3(4), 77-86.
- Bauman, C. L. (2013). *An exploration of the interconnectedness between elementary teacher job satisfaction, school culture and student achievement: a study in two Canadian elementary schools* (Doctoral dissertation, University of Southern Queensland, Toowoomba, Australia). Retrieved from [https://eprints.usq.edu.au/27827/3/Bauman\\_2013\\_whole.pdf](https://eprints.usq.edu.au/27827/3/Bauman_2013_whole.pdf)
- \*Beckley, G. M. (2012). *Catholic school leadership: School climate and culture and the influence on principal satisfaction* (Doctoral dissertation, Trevecca Nazarene University, Nashville, Tennessee, United States) Available from ProQuest Dissertations and Theses database (UMI No. 3519027).
- Bektas, F., Çogaltay, N., Karadag, E., & Ay, Y. (2015). School Culture and academic achievement of students: A meta-analysis study. *The Anthropologist*, 21(3), 482-488.
- \*Bektaş, F., Öçal, M. F., & İbrahim, A. (2012). School culture as the predictor of job satisfaction with respect to teachers' perceptions: A causal study. *Czesław Kupisiewicz*, 27(1), 295-305.
- Blandford, S. (2006). *Remodelling schools manual: Workforce reform*. Harlow: Pearson Education Ltd.
- Blum, P. (2006). *Surviving and succeeding in senior school management: getting in and getting on*. New York: Routledge.

- Bowden, J., Tierney, J. F., Copas, A. J., & Burdett, S. (2011). Quantifying, displaying and accounting for heterogeneity in the meta-analysis of RCTs using standard and generalised Q statistics. *BMC Medical Research Methodology*, 11(1), 11-41.
- Choi, G., & Choi, S. (2019). The effect of culture on organizational citizenship behavior, job satisfaction, and organizational commitment: A meta-analysis. *Korean Review of Organizational Studies*, 51(3), 43-72.
- Chung, H. J., & Ahn, S. H. (2019). Relationship between organizational culture and job satisfaction among Korean nurses: a meta-analysis. *Journal of Korean Academy of Nursing Administration*, 25(3), 157-166.
- Cohen, L., Manion, L., & Morrison, K. (2007). *Research methods in education (Sixth Edition)*. London: RoutledgeFalmer.
- Çarkungöz, E., & Ediz, B. (2009). Meta analizi [Meta analysis]. *Uludağ Üniversitesi Veteriner Fakültesi Dergisi [Journal of Research in Veterinary Medicine]*, 28(1), 33-37.
- Dinçer, S. (2014). *Eğitim bilimlerinde meta-analiz [Meta analysis in educational sciences]*. Ankara, Turkey: Pegem Akademi.
- Ebert, D. D., Zarski, A. C., Christensen, H., Stikkelbroek, Y., Cuijpers, P., Berking, M., & Riper, H. (2015). Internet and computer-based cognitive behavioral therapy for anxiety and depression in youth: a meta-analysis of randomized controlled outcome trials. *PloS one*, 10(3), 1-15.
- Edwards, J. L., Green, K. E., Lyons, C. A., Rogers, M. S., & Swords, M. E. (1998). The effects of cognitive coaching and nonverbal classroom management on teacher efficacy and perceptions of school culture. *American Educational Research Association*, (1998), 13-17.
- \*Gligorović, B., Nikolić, M., Terek, E., Glušac, D., & Tasić, I. (2016). The impact of school culture on Serbian primary teachers' job satisfaction. *Hacettepe University Journal of Education*, 31(2), 231-248.
- Gunnell, M.B. (2000). *Teachers' perceptions of school culture in relation to job satisfaction and commitment* (Doctoral dissertation, Western Michigan University, Kalamazoo, Michigan, United States). Available from ProQuest Dissertations and Theses database. (UMI No:9988423).
- \*Gürsel, D. (2016). *Ortaokullarda örgüt kültürünün yönetici ve öğretmenlerin iş tatminine etkisi [The effect of organizational culture in secondary schools on professional satisfaction of managers and teachers]* (Master's Thesis, İstanbul Aydın University, İstanbul, Turkey). Retrieved from <https://tez.yok.gov.tr/UlusalTezMerkezi/>
- Fragkos, K. C., Tsagris, M., & Frangos, C. C. (2014). Publication bias in meta-analysis: confidence intervals for Rosenthal's fail-safe number. *International Scholarly Research Notices*, (2014), 1-17.
- Haidich, A. B. (2010). Meta-analysis in medical research. *Hippokratia*, 14(1), 29-37.
- \*Hatchett, D. Y. (2010). *The impact of school culture, teacher job satisfaction, and student attendance rates on academic achievement of middle school students* (Doctoral dissertation, University of Louisville, Louisville, Kentucky, United States). Available from ProQuest Dissertations and Theses database (UMI No. 3415088).

- \*Hosseinkhanzadeh, A. A., Hosseinkhanzadeh, A., & Yeganeh, T. (2013). Investigate relationship between job satisfaction and organizational culture among teachers. *Procedia-Social and Behavioral Sciences*, 84(2013), 832-836.
- \*Hutabarat, W. (2015). Investigation of teacher job-performance model: Organizational culture, work motivation and job-satisfaction. *Asian Social Science*, 11(18), 295-304.
- Ipek, C., Aytaç, T., & Gok, E. (2015). Effect of gender on teachers' organizational culture perception: A meta-analysis. *Journal of Education and Training Studies*, 3(4), 9-20.
- Joharis, M. (2017). The effect of leadership, organizational culture, work motivation and job satisfaction on teacher organizational commitment at senior high school in Medan. *International Journal of Business and Management Invention*, 5(10), 1415-1425.
- Johnson, S. M., Kraft, M. A., & Papay, J. P. (2012). How context matters in high-need schools: The effects of teachers' working conditions on their professional satisfaction and their students' achievement. *Teachers College Record*, 114(10), 1-39.
- Joseph, M. X. (2016). *School and district leadership and the job satisfaction of novice teachers: The influence of school culture* (Doctoral dissertation, Boston College Lynch School of Education, Boston, Newton, Massachusetts, United States ). Retrieved from [https://pdfs.semanticscholar.org/7a9f/f52c9d4c70c78730ddf36999fc55d7db9a4d.pdf?\\_ga=2.217868574.902379413.1581938109-252249357.1581938109](https://pdfs.semanticscholar.org/7a9f/f52c9d4c70c78730ddf36999fc55d7db9a4d.pdf?_ga=2.217868574.902379413.1581938109-252249357.1581938109)
- Kablan, Z., Topan, B., & Erkan, B. (2013). Sınıf içi öğretimde materyal kullanımının etkililik düzeyi: Bir meta-analiz çalışması [The effectiveness level of material use in classroom instruction: A meta-analysis study]. *Kuram ve Uygulamada Eğitim Bilimleri [Educational Sciences: Theory & Practice]*, 13(3), 1629-1644.
- Kaplan, L. S., & Owings, W. A. (2013). *Culture re-boot: Reinvigorating school culture to improve student outcomes*. California: Corwin Press.
- Lenox, W. A. (2000). *Organizational culture and teacher job satisfaction* (Doctoral dissertation). Colorado State University Fort Collins, Colorado.
- \*Leuschke, E. E. (2017). *School culture and teacher change fatigue in Tennessee* (Master thesis, Middle Tennessee State University, Murfreesboro, Tennessee, United States). Available from ProQuest Dissertations and Theses database. (UMI No. 10602117).
- \*Mauseth, K. B. (2008). *The influence of perceived organizational support and school culture on positive workplace outcomes for teachers in private schools*. (Doctoral dissertation, Seattle Pacific University, Seattle, Washington, United States), Available from ProQuest Dissertations and Theses database. (UMI No. 3313328)
- Nadiri, H., & Tanova, C. (2010). An investigation of the role of justice in turnover intentions, job satisfaction, and organizational citizenship behavior in hospitality industry. *International Journal of Hospitality Management*, 29(1), 33-41.

- \*Oppong, R. A., Oppong, C. A., & Kankam, G. (2017). The Impact of organisational culture on employees' job satisfaction in colleges of education in Ghana. *African Journal of Applied Research (AJAR)*, 3(2), 28-43.
- Peterson, K. D., & Deal, T. E. (2002). *The shaping school culture fieldbook*. San Francisco: The Jossey-Bass Education Series.
- Pietschnig, J., Penke, L., Wicherts, J. M., Zeiler, M., & Voracek, M. (2015). Meta-analysis of associations between human brain volume and intelligence differences: How strong are they and what do they mean? *Neuroscience & Biobehavioral Reviews*, 57(2015), 411-432.
- Radakovich, P. S. (2016). *The relationship between organizational culture, intrinsic motivation, and employee performance: A systematic review and meta-analysis* (Doctoral dissertation, Wayne State University, Detroit, Michigan, United States) Available from ProQuest Dissertations and Theses database (UMI No. 10192204).
- \*Ray, J. M. (2010). *An investigation of the relationships among leadership effectiveness, types of organizational culture, and programmatic focus in Tennessee alternative schools* (Doctoral dissertation, The University Of Memphis, Memphis, Tennessee, United States). Available from ProQuest Dissertations and Theses database (UMI No. 3420211).
- \*Rochyadi, Y., Hardhienata, S., & Sunaryo, W. (2017). Sequential explanatory analysis of teachers' job satisfaction viewed from organizational culture, transformational leadership, and effectiveness of integrated quality management. *International Journal of Innovative Research in Science, Engineering and Technology*, 6(10), 20260-20264.
- Rosenbaum, S., Vancampfort, D., Steel, Z., Newby, J., Ward, P. B., & Stubbs, B. (2015). Physical activity in the treatment of post-traumatic stress disorder: a systematic review and meta-analysis. *Psychiatry Research*, 230(2), 130-136.
- Sabri, P. S. U., Ilyas, M., & Amjad, Z. (2011). Organizational culture and its impact on the job satisfaction of the university teachers of Lahore. *International Journal of Business and Social Science*, 2(24), 121-128.
- \*Sadeghi, K., Amani, J., & Mahmudi, H. (2013). A structural model of the impact of organizational culture on job satisfaction among secondary school teachers. *The Asia-Pacific Education Researcher*, 22(4), 687-700.
- \*Scharff, D. M. (2017). *Female faculty members in medical schools: an exploratory analysis of the impact of perception of job satisfaction, culture, opportunities for advancement, and formal mentoring on intent to stay* (Doctoral dissertation, Ohio University, Athens, Ohio, United States). Available from ProQuest Dissertations and Theses database. (UMI No. 10630947).
- Sergiovanni, T. (2005). *Leadership: What's in it for schools?*. Taylor and Francis e-Library.
- Simorangkir, M., Siburian, P., & Rahman, A. (2018). The effect of organizational culture, knowledge of educational management, work motivation and job satisfaction to performance of the state primary school principals in North Tapanuli district. *International Journal of Development and Sustainability* 7(3), 1117-1142.
- Skjórshammer, S. (1979). *Religion and job satisfaction* (Doctoral dissertation). Graduate School of Emory University, Georgia, United States.



- Spector, P. (1997). *Job satisfaction: application, assessment, causes and consequences*. London: Sage Publications, Thousand Oaks, CA.
- Stolp, S. (1994). Leadership for school culture. *ERIC Clearinghouse on Educational Management Eugene OR*, 9, 1-7.
- Tripathi, S., & Goel, M. R. (2015). An empirical study of employee job satisfaction in terms of organizational culture in technical education institutions in NCR. *Journal of Advanced Research in Engineering & Management*, 1(1), 17-27.
- Tsai, Y. (2011). Relationship between organizational culture, leadership behavior and job satisfaction. *BMC Health Services Research*, 11(1), 1-9.
- \*Türkoğlu, M. (2008). *Genel liselerde örgütsel kültürün iş doyumuna etkisi (Malatya İli örneği) [The effect of organizational culture on job satisfaction at high schools (Sample of Malatya city)]*. (Master's thesis, Firat University, Elazığ, Turkey). Retrieved from <https://tez.yok.gov.tr/UlusalTezMerkezi/>
- Whitehead, A. (2002). *Meta-analysis of controlled clinical trials*. Chichester: John Wiley & Sons.
- \*Wong, Y. H. P. (2010). Kindergarten teachers' perceived school culture and well-being: a comparison of non-profit-making and profit-making kindergartens. *Early Child Development and Care*, 180(3), 271-278.
- Yang, Y., & Niu, T. (2018). A meta-analysis of associations of LEPR Q223R and K109R polymorphisms with Type 2 diabetes risk. *PloS one*, 13(1), 1-25.
- \*You, S., Kim, A. Y., & Lim, S. A. (2017). Job satisfaction among secondary teachers in Korea: Effects of teachers' sense of efficacy and school culture. *Educational Management Administration & Leadership*, 45(2), 284-297.
- Zmuda, A., Kuklis, R., & Kline, E. (2004). *Transforming schools: Creating a culture of continuous improvement*. Alexandria: ASCD.