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A Meta-analysis: School Administrators' and Teachers' Views on The Level of Administrators' Instructional Leadership Behaviours

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Abstract
This study aims to define the effect size of school administrators' and teachers' views on the level of administrators' instructional leadership behaviors by meta-analysis method. The main data source is master and doctorate dissertations, conducted between 2000-2019, which are in Turkish or in English. As a result of scanning out of 460 studies, 37 are included in the meta-analysis. The effect size, variances, and comparison of the groups for each study are calculated. "Funnel plot" and "Orwin's Fail-Safe N" methods are used to test publication bias. As a result of the analyses, Q-statistic is Q = 172,902, and I2 is calculated as 79 %. The effect size calculated according to the random effects model is 0, 40 in favor of the school administrators [0.27; 0.50], positive and statistically significant. This effect size value (ES = 0.40) means that the school administrators' views on school administrators' instructional leadership are more positive than teachers' views.

Keywords: Effect size, school administrator, instructional leadership

Introduction

Leaders are the determinants of today and the future of the nations. They have a crucial role in pointing the direction of human history in almost every aspect of the level reached by today's civilization. They have always been the focus of interest throughout history. Not only the followers, but also their rivals and opponents, have also tried to get to know leaders, understand, interpret, and predict their attitudes and behaviors (Konan, 2015). The history of leadership dates back to the work of Plato's "Republic" in 400 BC (Lunenburg & Ornstein, 2013) and since then, this issue has been one of the topics extensively examined in the field of management. In the 20th century, researchers and practitioners have made intensive efforts to define and resolve leadership (Erçetin, 2000; Yukl, 2010). However, according to Burns (1978), leadership is one of the least understood phenomena (Evers & Lakomski, 1996) so, there are many definitions of leadership in the field. Undoubtedly, the fact that a common understanding of the definition of leadership hasn't been developed so far, can be accepted as evidence of the complexity of this phenomenon. Research papers produced in the educational administration field from the 1980s to today show that schools, the most functional part of the education system, have a critical prescription in the process of managerial leadership behaviors, organizational change, school development, and improvement. Instructional leadership emerged as a kind of response to old leadership theories in which the managerial roles of the administrator were brought to the fore. With instructional leadership, the understanding of improving teaching has become more important (Hallinger, 2005).

As of the 1970s, school administrators' leadership roles and behaviors have started to be examined more and to be subject to academic studies. And, this also played a major role to analyse "instructional leadership" comprehensively (Hallinger & Murphy, 1985; McEvan, 1994). Instructional leadership has three dimensions the instructional leadership role of the principal. These are "Defining the School's Mission, Managing the Instructional Program, and Promoting a Positive School Learning". These dimensions are also divided into instructional leadership functions as seen below: (Hallinger, 2005)

1. "Dimension: Defining the School's Mission
- Framing the School's Goals
- Communicating the School's Goals"
2. "Dimension: Managing the Instructional Program
- Supervising and Evaluating Instruction
-Coordinating the Curriculum"
-Monitoring Student Progress
3. "Dimension: Promoting a Positive School Learning Climate

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-Protecting Instructional Time
-Promoting Professional Development
-Maintaining High Visibility
-Providing Encouragement for Teachers, Developing High Expectations
-Standards, and Providing Encouragements for Learning"

Instructional leadership differs from other leadership styles in that it focuses on learning-teaching processes at schools (Blase & Blase, 1999; Hoy & Hoy, 2006). It is a complex leadership style that is influenced by many factors (Hallinger & Murphy, 1985). Learning and instructional leadership are indispensable concepts for an effective school that cannot be considered separately (Pate, James, & Leech, 2005). Instructional leadership can be described as behaviors that are exhibited by the administrator or by other stakeholders with the encouragement and guidance of the administrator to increase student success in school (De Bevoise, 1984).

The management process cannot be separated from instructional leadership. A good school administrator needs to realize and meet the expectations of both teachers and students regarding education. In this context, the administrator needs to have knowledge and experience in many other issues related to education, especially in pedagogy, learning, and teaching processes (Southworth, 2002). Administrators who have adopted the principle of instructional leadership are leaders who adopt effective instructional leadership strategies, make the necessary breakthroughs in academic success, and adopt high standards as a principle (Glanz, 2006).

Creating a positive school climate for all stakeholders in instructional leadership is fundamental for increasing student achievement and teacher effectiveness. It is essential to determine the priority issues in the teaching process and to provide guidance and information to achieve the goals. Ensuring the professional development of the staff, and creating discipline and order by removing the things that may hinder the teaching process are the issues that the instructional leader should consider (Faulkenberry, 1996).

Instructional leaders should have critical and analytical thinking and problem-solving skills. They should prioritize equality of opportunity and social justice in the education process, observe the process at every stage, and make the necessary interventions and changes. Besides, they should support and allow teachers to improve themselves (Prytula, Noonan, & Hellsten, 2013; Sherman & MacDonald, 2008; Şişman, 2014). Administrators should share and collaborate with teachers in all kinds of educational fields and share responsibility (Marks & Printy, 2003). Instructional leadership focuses to motivate all education stakeholders, especially teachers, to reach the school's goals and to have productive results.

It is possible to express many studies in the educational sciences, which are focusing on instructional leadership conducted in qualitative or quantitative methods (Ada ve Gümüş, 2012; Atkinson, 2013; Aytekin, 2014; Balcı, 2009; Brynelson, 2014; Coşar, 2010; Çelikten, 1998; Demiral, 2007; Fancera and Bliss, 2011; Guerra, 2014; Goff, Gümüşeli, 1996; Hallinger, 2005, 2011; Hallinger & Murphy, 1985; Kış, 2013; Mangin & Stoelinga, 2010; Mawrogordato and Goldring, 2012; Montinola, 2014; Neumerski, 2012; Ohlson, 2009; Sağır, 2011; Southworth, 2002; Sönmez, 2010; Şahin, 2011). Some of these studies examine school administrators/teachers' instructional leadership behaviors based on the perceptions of teachers and/or administrators (Atkinson, 2013; Brynelson, 2014; Coşar, 2010; Demiral, 2007; Fancera and Bliss, 2011; Guerra, 2014; Montinola, 2014; Sağır, 2011; Şahin, 2011) or the relationship between other leadership approaches and instructional leadership has been examined (Aytekin, 2014; Balcı, 2009; Goff et al., 2012; Hallinger, 1992; Sönmez, 2010; Şahin, 2004, 2011; Valentine & Prater, 2011). Also, the relationship of instructional leadership to variables such as organizational citizenship (Belenkuyu, 2015; Çelik, 2010), teachers' self-efficacy (Ford, 2014), motivation, job satisfaction, communication styles, organizational climate, effective school, student achievement, professional burnout of teachers, professional development of teachers, professional development, emotional intelligence and organizational commitment of teachers (Arslan, 2007; Balcı, 2009; DeArmas, 2015; Deegan, 2014; Derbedek, 2008; Gezici, 2007; Gürsun, 2007; İnceler, 2005; Serin, 2011; Theus, 2014; Teske, 2014; Yıldız, 2013) has been examined. Although there are a number of studies conducted to determine school administrators' leadership behaviors, these researchers seem to have not achieved common results. Different findings were obtained in terms of variables such as task title and gender, etc.

Today, different results are obtained in many studies performed independently of each other. In light of these data, the planning of new research can only be made possible with the creation of different hypotheses with comprehensive and scientifically reliable studies (Borenstein et al., 2009; Card, 2012; Kış, 2013). It is not going to be wrong to express that the use of meta-analysis has rapidly increased in the past few decades. Meta-analysis is one of the brick stones of the statistical methods to apply an unbiased assessment of the available evidence (Rothstein et al., 2005; Davey et al., 2011; Balduzzi, 2019). In the meta-analysis, all

accessible studies are included in the analysis according to the coding protocol created in line with the research question. The findings of primary studies are synthesized and the lowest confidence interval is reached (Kış, 2013; Thalheimer & Cook, 2002). Indeed, the number of studies conducted with the systematic synthesis in the field of leadership is increasing day by day. In some of these studies, school administrators' leadership types (transformational, toxic, instructive, instructive) were examined by systematic synthesis methods in terms of student achievement, perception of the teacher or school administrator, gender, branch, and level of education (Çimen, Bektaş & Yücel, 2019; Karadağ, Bektaş, Çoğaltay & Yalçın, 2015; Hallinger, Dongyu & Wang, 2016; Leithwood and Sun, 2012; Poekert, 2012; Schyns and Schilling, 2013; Sun & Leithwood, 2012; Şişman, 2016). In some cases, the effects of organizational citizenship behavior on leadership styles (Belenkuyu, 2015), the influence of mobbing on leadership perception (İri, 2015), the reliability of "The Principal Instructional Management Rating Scale" (PIMRS) (Hallinger, Wang, and Chen, 2013), the effects of school leadership (Hendriks and Scheerens, 2013) have been systematically synthesized.

When the literature is reviewed, it is possible to express that school administrators' instructional leadership behavior is among the ones mostly examined. Besides, there are many research variables in related studies that display the comparison of school administrator and teacher views on school administrators' instructional leadership behavior levels. We, therefore, believe that it is important to synthesize the results of the research on school administrators' and teachers' views related to school administrators' instructional leadership behaviors. Thus, for both practitioners and researchers, revealing the big picture of this topic will hopefully contribute not only to revealing the final state of this research but also to strategically determining the direction for new studies. As a result, this study aims to determine the effect sizes of school administrators' and teachers' views on the level of administrators' instructional leadership behaviors.

Research Questions

This research is carried out to determine the effect size of school administrator and teacher views on the level of school administrators' instructional leadership behaviors. The answers were sought to these questions:

Is there a difference between the administrators' and teachers' views about the instructional leadership competencies of administrators?

If so, in which direction and at what level is the magnitude of the difference?

Method

Research Model

This research aims to determine the effect size of school administrators' and teachers' views on the level of school administrators' instructional leadership behaviors by using the meta-analysis method. Meta-analysis aims to bring together the findings of research done at varied times and places about the same topic and to quantitatively find a more accurate result by increasing the sample size (Cumming, 2012; Ellis, 2012; Petticrew & Roberts, 2006).

One of the most powerful aspects of meta-analysis is the possibility of reaching a large number of samples that single research cannot reach. Another is the opportunity to synthesize results in many different cultures (published country) and publication types (Ph.d. dissertations, master's dissertations), allowing for maximum sample diversity. This situation results in a higher rate of generalizability of the results than the generalizability of each study. Thus, the results obtained provide the opportunity to make more valid recommendations and to set long-term strategies for the identification of new future research topics.

Data Collection

The main data source of this research is the master and Ph.D. Dissertations conducted between 2000-2019 and written in Turkish or English in Turkey and in the USA. The purpose of writing a dissertation is to enable the researcher to learn the topic thoroughly. This helps the researcher to gain competence in academic writing and expertise in the subject he /she investigated. In the field of instructional leadership, it is possible to reference thousands of studies, some of which are already mentioned above. However, data from only dissertations are used in this research and this choice aims to narrow the subject and make it more specific. This choice of data source can be defined as the limitation of the study; on the other hand, it can be qualified as an option to deal with the issue from different perspectives.

"Key words" used in the search: "öğretim/sel lider/lik/liği", "instruction/al leader/ship".

Scanned resources and databases

Master and Phd. dissertations, conducted between 2000 -2019, which focus on instructional leadership, have been searched through "YÖK (Council of Higher Education) Thesis Center" and "ProQuest" databases. A total of 460 master's and Ph.D.. dissertations with the related key concepts were reached in the first scan. 79 of these 460 dissertations are in full text in Turkish; 38 are in full text in English. For the dissertations published in Turkey, the "YÖK Dissertation Scanning Database" was scanned. For the English dissertations published in the USA, the "ProQuest Database" was scanned. As a result, out of 460 dissertations, 37 were included in the meta-analysis. How these studies are selected is described under the heading of inclusion criteria and is illustrated by the flow diagram in Figure 1.

Inclusion criteria

Criteria 1: Type of study investigated: Master and Ph.D. dissertations on instructional leadership.

Criterion 2: Conformity of the investigated studies: In the meta-analysis studies, in order to reach the standardized effect size, it is envisaged that the included studies should be empirical and have the school administrator and teacher groups.

Criterion 3: Adequate numerical data: For calculating the effect sizes required, descriptive numerical values are needed for title groups (school administrators and teachers) of the studies included in the study. For this purpose, "sample size, mean score, standard deviation, F, t, X2, Kruskal Wallis, Mann Whitney U, and p values" were included in the study title groups.

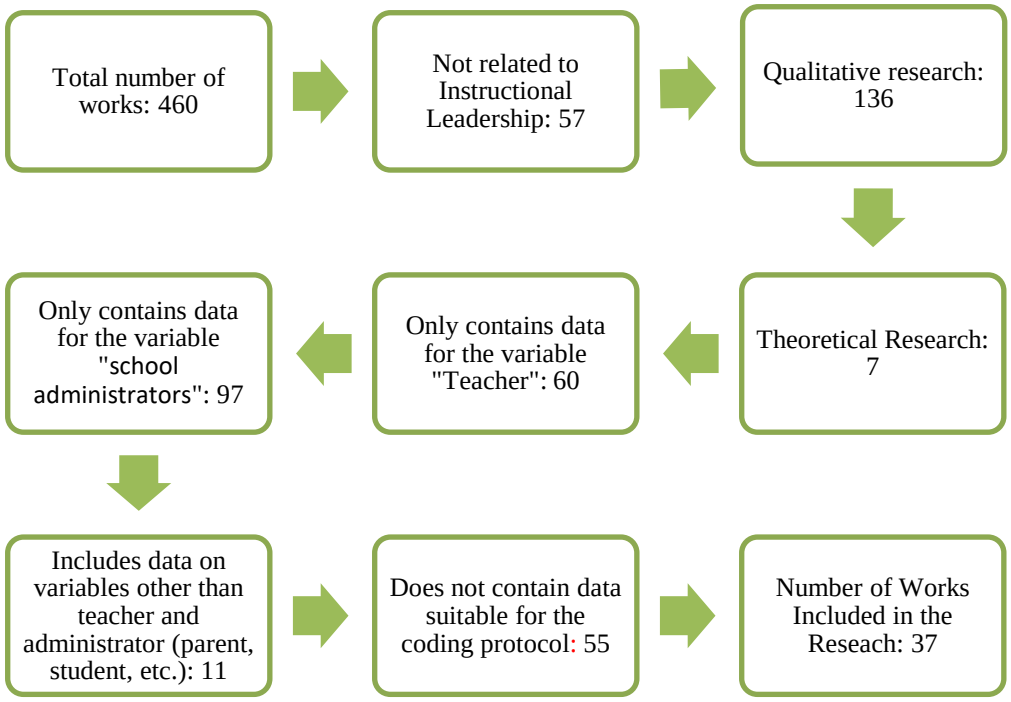

Figure 1. Flow diagram showing the selection of those eligible for meta-analysis among sources obtained in the field scan

Coding method

After collecting studies on instructional leadership, a coding method has been developed to convert categorical variables to data that can be compared for studies that meet the inclusion criteria. It is proposed to establish a clear and detailed coding system as much as possible for the research involved in the meta-analysis (Card, 2012; Cooper, Hedges & Valentine, 2009; Cumming, 2012; Ellis, 2012; Petticrew & Roberts, 2006). A two-part coding system was established for research data: (a) The first part is the "work's identity". This section investigates the number of the study, the name of the study, the name of the author, the publication type (master / doctoral degree), and the published country. (b) The second part is "data" and this section investigates "scale mean scores, standard deviations, F test, t-test, X2 test, Mann Whitney U test, Kruskal Wallis and p values" in the studies included. After this examining period, the relevant data were passed to the coding protocol prepared in the excel program.

Coding protocol reliability

The provision of coding protocol reliability based on inclusion criteria is recommended in meta-analysis studies (Card, 2012; Petitti, 2000). By this proposal, the form for the Coding Protocol, which was organized to provide inter-rater reliability, was filled in by the two researchers separately. Possible differences between the coders were re-examined with the third investigator and finalized.

Validity

In a meta-analysis, if the data-gathering tools included in the analysis can measure what it predicts to measure, this indicates the validity of the data used in the meta-analysis. Information on the combined effect size can be valid according to the level of validity of the research being analyzed (Petitti, 2000). It has been determined that all researchers involved in this study provided the validity of the data collection tools used. This was accepted as proof of the validity of this research.

Study moderators

Independent variables that are thought to influence the outcome of the meta-analysis study and used in meta-analysis to determine the size of this effect are named moderators. The moderators are factors related to the size of the effect (Card, 2012). The moderator is determined by the researchers and can be anything likely to affect the calculated average effect size. In this research, variables of published country and publication type (master / phd. dissertation) are the moderators.

Descriptive statistics of the research included in the study

This meta-analysis aims to determine the effect size of school administrators' and teachers' views on the level of administrators' instructional leadership behaviors. Data were collected from a total of 37 studies, 17 of which were Ph.D. dissertations, and 20 of them were master dissertations. Of these studies, 24 were conducted in Turkey, and 13 were completed in the USA. In the studies which have been analyzed, it was determined that 14.936 people, including 1965 administrators and 12.971 teachers, were consulted. The statistical analyses of this study were performed on a sample of 14.936 people.

Data Analysis

This research was carried out by a meta-analysis method. When the arithmetical mean values of the independent variables are not obtained from the same scales, "The Standardized Mean Difference" (SMD) is used as effect size. The statistical package program "Comprehensive Meta-Analysis" (CMA) 2.0 was used for calculating the effect size, variances, and comparison of the groups for each research. The level of significance is 0.05 in the studies included so, in this research, the significance level of the statistical analysis is determined as 0.05 as well.

While the participants' average effect size was calculated by using the obtained data from the views of 14.936 people, the school administrators' values were taken as the experimental group and the teachers' values as the control group. A positive result of the school administrators' findings regarding instructional leadership shows that the views of the administrators are higher than the teachers', and the negative result shows that the views of the administrators are lower than the teachers'.

Findings

This research is carried out to find out the effect size of school administrator and teacher views on the level of administrators' instructional leadership behaviors. The answers were sought to these questions: "Is there a difference between the administrators' and teachers' views about the instructional leadership competencies of administrators?" The results of publication bias, homogeneity test, fixed effects, and random effects models, and moderator analysis are presented below.

Publication bias

Before the meta-analysis, selected studies should be tested for publication bias. For this reason, analyses were conducted to determine whether there was a publication bias. Publication bias means that the tendency to publish studies with positive and statistical significance is higher than that of negative and statistically insignificant ones. The presence of publication bias affects the average effect size and shows this is higher than it should be (Borenstein, et al., 2009). In this research, two methods have been used to test publication bias:

Funnel plot

This graph is considered a visual summary of the meta-analysis data set, indicating the probability of publication bias (Cooper, et al., 2009). This graph has the standard error value (SE) on the Y axis and effect size (ES) on the X axis. Studies with small standard error values are collected near the top of the funnel shape and near the average effect size. Studies having high standard error value shift to the bottom of the figure. The main reason for this is that there is more sample variance in the estimation of the effect size in studies with few samples (Borenstein, et al., 2009). A funnel scatters plot showing the probability of publication bias is given in Figure 2.

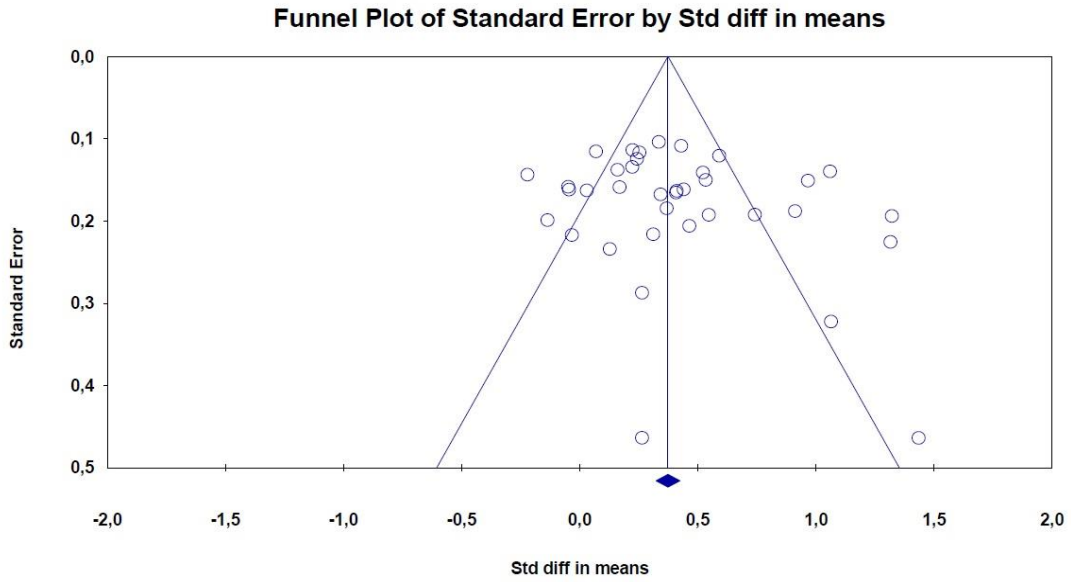

Figure 2. "Funnel scatter plot of studies involving effect size data on school administrators' instructional leadership"

In the absence of publication bias, studies are expected to spread symmetrically on both sides of the vertical line indicating the combined effect size (Borenstein, et al., 2009). Figure 1 reveals that the majority of the 37 studies are placed near the top of the funnel and very near to the combined effect size. Only two studies were placed at the bottom of the funnel according to the task title variable. If the 37 studies included in the meta-analysis had a publication bias, most of the work would be collected in the lower part of the funnel shape and /or only in one part of the vertical line. The funnel scatters plot in Figure 1 is one of the proofs that there is no publication bias in the studies included in the research.

Orwin's Fail-Safe N

"Orwin Fail-Safe N" is expected to determine the number of studies that may be absent in a meta-analysis (Borenstein, et al., 2009). "Orwin's Fail-Safe" was calculated as N 2035 for this analysis and the number of studies needed to reach the average effect size of 0.01 (trivial), which is almost zero effect level, is 2035. However, 37 studies in the analysis are all studies that are achieved according to the inclusion criteria from all studies conducted for this research question. Therefore, it is not possible to reach 2035 studies other than 37 studies included in the analysis. This result is another proof of not having publication bias in the meta-analysis.

Analysis results reveal that there isn't any publication bias in the studies in this meta-analysis.

Homogeneity Test (Q and I2 Statistics)

Homogeneity is the degree of diversity of study designs included in the analysis. "Q statistic and I2 values" are examined for the homogeneity test. "Homogeneity Test" results of effect size distribution are in Table 1.

Table 1.
Homogeneity Test Results of Effect Size Distribution

Q value	df (Q)	p	I2 value
172,902	37	0,0000	79,179

The homogeneity test, also known as “Q-statistic”, was calculated as Q = 172,902. Analyses have shown that the effect size distribution have a heterogeneous characteristic according to the “fixed-effects model”. Since the homogeneity test is higher than expected, the variance of the random effect component is calculated and the model is converted to a random-effects model.

I2, developed as a complement to the Q statistic, gives a better result of heterogeneity (Petticrew and Roberts, 2006). I2 shows the rate of total variance for effect size. The contrary to Q statistics, the I2 statistic is not influenced by the study numbers. “In the interpretation of I2, 25% showed low heterogeneity, 50% moderate heterogeneity, and 75% high heterogeneity” (Cooper, et al., 2009). Since the average effect size I2 value obtained with the fixed effects model shows high-level heterogeneity with 79%, the model is converted to a random-effects model. These values obtained from both analyses show that there is a high level of heterogeneity among the works. The effect size of the school administrators' and teachers' views on administrators' instructional leadership behaviors were determined by the “Random Effects Model”, with the combined average magnitude (without deducting the outlier values) and the upper and lower limits of the 95% confidence interval.

Figure 3 shows “the forest plot” based on the “fixed and random effects models” of the effect size of school administrators and teacher views on administrators’ instructional leadership behaviors.

In Figure 3, “the combined effect size” in the model of both “the fixed and the random effects” appears to have an effect magnitude of close to 0.50 in favor of school administrators. As a result of the analysis, the data from 37 studies included in the meta-analysis by the random effects model were calculated as a 95% confidence interval, the lower limit was 0.29 and the upper limit was 0.52 and the effect size value was ES = 0.40. In this respect, it is determined that school administrators' views on school administrators' instructional leadership behaviors are more positive than teachers. This effect size is “small” due to Cohen's (1988) classification of 0.20-0.50; however, it can also be interpreted as close to the “medium” effect. This result is close to the medium level (0.40 <d <0.75) according to the classification of both Lipsey (Cooper, et al., 2009) and Thalheimer and Cook (2002). When evaluated as a whole, the calculated effect value is close to the medium level.

Model	CALISMA ADI, YIL	BOYUT/SORU	Std diff in means	Standard error	Variance	Lower limit	Upper limit	Z-Value	p-Value
	AKDAG,	Combined	0,343	0,168	0,028	0,014	0,672	2,045	0,041
	BALCI,	Blank	0,160	0,138	0,019	-0,110	0,431	1,165	0,244
	BAYRAKER	Blank	-0,045	0,162	0,026	-0,362	0,272	-0,277	0,782
	BEYTEKIN,	Combined	1,316	0,225	0,051	0,874	1,758	5,838	0,000
	CAKICI,	Combined	-0,221	0,144	0,021	-0,503	0,061	-1,539	0,124
	CELEBI,	Combined	0,440	0,162	0,026	0,124	0,757	2,727	0,006
	CETIN,	Blank	-0,136	0,199	0,040	-0,526	0,254	-0,684	0,494
	DEMIRAL,	Combined	0,030	0,163	0,027	-0,289	0,349	0,186	0,852
	DEMIRAL,	Combined	0,591	0,121	0,015	0,354	0,827	4,895	0,000
	GOKYER,	Combined	0,368	0,185	0,034	0,007	0,730	1,995	0,046
	INCELER,	Combined	0,464	0,206	0,042	0,061	0,868	2,255	0,024
	KIRILMAZ,	Combined	0,253	0,117	0,014	0,024	0,482	2,166	0,030
	O.KAYA,	Combined	0,243	0,125	0,016	-0,001	0,487	1,949	0,051
	ONDER,	Combined	0,534	0,150	0,023	0,240	0,828	3,556	0,000
	OZBAS,	Combined	0,522	0,141	0,020	0,246	0,799	3,699	0,000
	POYRAZ,	Blank	1,322	0,194	0,038	0,942	1,703	6,817	0,000
	SAGIR,	Combined	0,430	0,109	0,012	0,217	0,643	3,953	0,000
	SOZUERO	Combined	-0,049	0,158	0,025	-0,359	0,262	-0,308	0,758
	TAS, 2000	Combined	0,223	0,134	0,018	-0,040	0,486	1,659	0,097
	TEKELI,	Combined	0,967	0,151	0,023	0,671	1,263	6,403	0,000
	DONMEZ,	Combined	0,411	0,163	0,027	0,091	0,731	2,514	0,012
	HENDERS	Combined	1,065	0,322	0,104	0,433	1,696	3,304	0,001
	TOMASETT	Blank	1,436	0,464	0,215	0,527	2,344	3,096	0,002
	MCWILLIA	Combined	0,264	0,463	0,215	-0,644	1,173	0,570	0,569
	SCHINDLE	Combined	0,408	0,165	0,027	0,084	0,732	2,467	0,014
	ATKINSON,	Combined	0,742	0,192	0,037	0,365	1,119	3,858	0,000
	DENNIS,	Combined	0,128	0,234	0,055	-0,331	0,586	0,546	0,585
	HAGGARD,	Combined	-0,033	0,217	0,047	-0,459	0,393	-0,152	0,879
	LONG,2008	Combined	0,335	0,104	0,011	0,132	0,539	3,227	0,001
	CORNELL,	Combined	0,169	0,159	0,025	-0,142	0,480	1,065	0,287
	SMITH,	Combined	0,912	0,188	0,035	0,544	1,281	4,851	0,000
	LABRECQ	Combined	0,264	0,287	0,083	-0,299	0,827	0,920	0,358
	LITCHKA,	ölçek	0,224	0,114	0,013	0,001	0,447	1,969	0,049
	ANDERSO	Combined	0,311	0,216	0,047	-0,112	0,735	1,441	0,150
	ZORLU,	Combined	1,061	0,140	0,020	0,787	1,334	7,590	0,000
	OLUKPINA	Combined	0,069	0,115	0,013	-0,157	0,295	0,599	0,549
	AYGÜN,	Combined	0,547	0,193	0,037	0,170	0,924	2,841	0,005
Fixed			0,374	0,026	0,001	0,323	0,425	14,396	0,000
Random			0,409	0,059	0,003	0,293	0,524	6,926	0,000

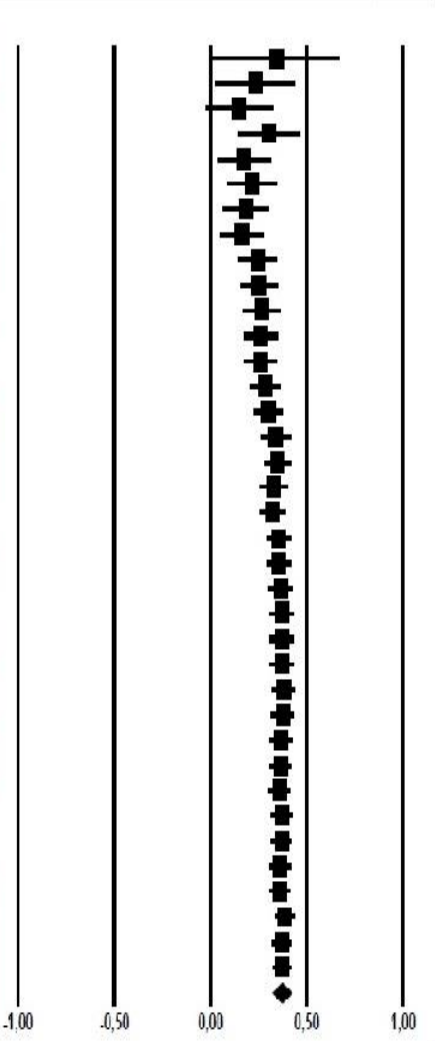

Figure 3. The forest plot is based on the fixed and random effects models of the effect size of school administrators and teacher views on administrators' instructional leadership behaviors.

Findings of Moderator Analysis

It was examined whether the moderators have an impact on the results of the research. For this purpose, two moderators have been designated as "published country and publication type; the "Q-statistic homogeneity" test was applied to the included studies in the meta-analysis according to the moderators of the "published country" and "the publication type". In the moderator analysis, the number of subgroups is estimated to be at least 2-8 (Pincus, et al., 2011). These preconditions are met in the variables subject to moderator analysis.

Published country (country of the study)

Based on the "published country" moderator, research, having an average mean value, from Turkey (24) and 13 from the USA (13) are identified.

As a result, the effect size of the research conducted in the USA was 0.37, and the research conducted in Turkey was 0.35. For the "published country" moderator, the variance between research was not statistically significant (Q = 0.045; p = 0.831). This result shows that the country where the study was

conducted did not change the effect size of the school administrators' and teachers' views on administrators' instructional leadership behaviors.

Publication Type

The studies included in the research were divided into two groups a doctoral thesis and a master thesis according to the "publication type" moderator. For the "publication type" moderator, 17 PhD. dissertations and 20 master's dissertations having average effect size data were determined. As a result, the effect size values of the publication type groups were 0.34 for the studies conducted as a Ph.D. dissertation and 0.37 for the studies conducted as a master dissertation. The variance between studies was not statistically significant for the publication type moderator ($Q = 0.225$; $p = 0.636$). This result indicates that the publication type did not change the effect size of the school administrators' and teachers' views on administrators' instructional leadership behaviors.

The result of the analysis shows that the distribution between the groups was homogeneous for both moderators. In other words, the grouping did not change the average effect size value of the school administrator and teacher task titles.

Results, Conclusions, and Recommendations

This research aims to determine the effect size of school administrators' and teachers' views on the level of administrators' instructional leadership behaviors. As a result of the scan, 13 from the United States and 24 from Turkey, a total of 37 dissertations were in the analysis. "Orwin's Fail-Safe N" showed that there is no publication bias. Since there is a big amount of heterogeneity in the studies included in the analysis, the model is translated into the "Random Effects model".

The effect size calculated based on "The Random Effects Model" is in favor of the administrators. This effect size value means that the school administrators' views on instructional leadership of school administrators are more positive than teachers. This value is low since it is between 0.20 and 0.50 according to the assortment of Cohen (1988: 40); but it has an effect close to medium. Since it is close to 0.45, in Lipsey's classification (cited in Cooper, et al., 2009) it has an effect close to medium. As a result, when evaluated as a whole, the calculated effect value is close to the medium level as Thalheimer and Cook (2002) also emphasize ($0.40 < d < 0.75$).

Finally, it was examined whether there was any effect of the moderators as the published country (USA, Turkey) and publication types (Ph.D. dissertations, master dissertations) included in the study. As a result of the analysis, it was found that the distribution between the groups was homogeneous for both moderators; In other words, the grouping did not change the average effect size value of the "school administrator" and "teacher" task titles.

When these results are evaluated as a whole, there is a significant dissimilarity between school administrators' and teachers' views about the administrators' instructional leadership behaviors. Administrators believe that they display more instructional leadership behaviors than teachers perceive them to display. It is an expected result that school administrators' self-perceptions would be more positive than teachers' perceptions. As the studies are evaluated by the descriptive synthesis method, which is a method used before meta-analysis in systematic synthesis, a statistically significant result was reached in favor of school administrators in dissertations in which "difference" and "direction of difference" are specified in the research report.

According to the results of the vote-counting method that is used as another type of systematic synthesis, it was determined that all the dissertations in which "the direction of difference" and "difference" were stated in the research report were reported in favor of school administrators and the result was statistically significant. The results of both evaluations support the main outcome of this research.

Varied results of many studies on school administrators' leadership behaviors, conducted by different researchers in terms of many variables indicate that it is difficult to talk about common results (Atkinson, 2013; Aytekin, 2014; Brynelson, 2014; Coşar, 2010; Demiral, 2007; Fancera and Bliss, 2011; Guerra, 2014; Hallinger, 2005, 2011; Kış, 2013; Montinola, 2014; Neumerski, 2012; Ohlson, 2009; Sağır, 2011; Sönmez, 2010; Şahin, 2011). After all, it is obvious that interest in meta-analysis studies is increasing day by day and up-to-date studies on the subject are being carried out more frequently.

In his study, Şişman (2016) investigated the effects of teacher characteristics on their perceptions of instructional leadership. While no significant effect of gender and branch was found in this study performed with the random-effects model; it was concluded that task type, school level, and school type affect the perception of instructional leadership.

In a meta-analysis study by Hallinger, Dongyu & Wang (2016) aiming to measure whether there is a difference in the perceptions of female and male administrators regarding instructional leadership

practices, it was concluded that female school principals were more involved in instructional leadership practices compared to male school principals. Again, a meta-analysis study, which was conducted by Hallinger, Wang & Chen (2013), aims to examine and update the measurement characteristics of the "Principal Instructional Management Rating Scale" (PIMRS) (Hallinger & Murphy, 1985).

The difference between school administrators' and teachers' perceptions of the same role may also increase the likelihood of a role conflict. This can cause both the school administrator and the teacher, and therefore the school as a whole, to lose their energy. To minimize this risk, both the school administrators and the teachers are expected to act diligently. For this purpose, it is beneficial to ensure that the school administrators' educational leadership behaviors are perceived as similar as possible by the school administrators and teachers in terms of scientific, professional, and legal aspects. Thus, school administrator and teacher relations will be able to be realized on a more realistic and healthier basis. This could be expected to contribute to the school's effectiveness as a whole. For this purpose, it may be beneficial for school administrators and teachers to think talk, and evaluate together the role of school leadership.

The sharing of the legal and professional grounds of the administrators' instructional leadership behaviors, in particular, may lead to a reduction in their disagreement and/or may provide them to evaluate each other without any prejudice.

The results of subsequent research and the results of these studies can be evaluated comparatively and the variables with the highest and lowest difference between the views of the administrators and teachers regarding the leadership role of the administrators can be determined. Suggestions for their solution can be developed by investigating the causes and possible consequences.

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** The ones marked with asterisks are included in the meta-analysis.*

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