



The organizational power applied by school principals and its effect on teachers' perception of power distance

Lukman ZIBLIM

Educational Science department, Mugla Sıtkı Kocman University Mugla, Turkey
ORCID: 0000-0002-8467-3397

Abbad ERTÜRK *

Educational Science department, Mugla Sıtkı Kocman University Mugla, Turkey
ORCID: 0000-0002-3324-6731

Article history

Received:
08.10.2021

Received in revised form:
01.12.2021

Accepted:
05.04.2022

Key words:

power distance, power types,
organizational power, Turkey,
Ghana

The aim of this research is to examine the relationship between the power types used by school principals and the power distance perceptions of teachers. The population is composed of the teachers in Mugla (Turkey) and Tamale (Ghana). The sample is made up of 384 teachers from Mugla and 407 teachers from Tamale. The data used in this research were collected using Power Type Scale and Power Distance Scale, both of which were developed in schools. In the analysis of the data, descriptive statistics were used in determining teachers' views of the power types used by school principals and the teachers' power distance perceptions. T-test was used in determining the differences in opinions and perceptions regarding the power types and power distance according to the demographic variables considered in this study. In the statistical analysis made; 0.5 was chosen as the significant value. According to the findings of the research, Mugla and Tamale principals exhibited the same order of preference in the power types they employ. Mugla principals and Tamale principals used reward power and legitimate power respectively at statistically significant levels. Regarding power distance, Tamale teachers' perceptions in all the dimensions of power distance were higher than Mugla teachers' perceptions at statistically significant levels. In both Mugla and Tamale samples, power types used by principals were found to be very good predictors of teachers' power distance perceptions.

Introduction

One of the key concepts in organizational management is organizational power. It defines the relationship between organizational leaders and their subordinates in their pursuit of organizational goals. In achieving organizational ends, decisions about the utilization of resources and the concentration of resources are of great importance. Also, for people in organizational leadership positions, making these decisions seems to be mediated by several factors. For example, a leader's inclination towards certain leadership styles (Goncalves,

* Correspondency: abbasertu@gmail.com

2013) and approaches can hugely influence how organizational power is dispensed in making decisions or in acting in an organization. Another important organizational process is how leadership comes to prefer certain types of power over others in their organizational management practices. Regarding how leaders make decisions about which powerbases to use, one of the propositions emanates from the work of (Hofstede, 1980a) on culture and organizations, where he maintained that certain mental programs allow for human behavior prediction considering a specific situation. This paper explores ways in which the use of power influences the perception of power distance in educational organizations.

Culture

The relationship between national cultures and organizational life have long been an area of interest for multinational corporations. Multinationals operating in different cultural contexts contemplates whether they should adapt to local cultures and to what extent they should do that for effective management and organizational output. A review by Gerhart (2009) elaborates on the levels of the variations of organizational cultures that result from the influence of the local culture of an organization. He maintained, based on the findings of the review, that most of the variations in organizational culture are not explained by the national culture in which the organization operates. That notwithstanding, the GLOBE (2004) research has emphasized the deterministic role of organizational leaders' native cultures and how they influence their organizational actions. The Globe study drawing on a variety of sources explored etic and emic principles that impact organizational leadership.

Another important study that provides a conceptual background to this research is Hofstede (1980a) examination of national cultures where he underscored the different patterns of culture clusters in over a spectrum of so many countries. Hofstede (1980b) study, revealed dimensions, some of which were later captured in Globe (2004), provides an insight into some of the elements of national culture that have the capacity to influence management approaches, leadership styles and the use of power. These elements of national culture are power distance, collectivism vs. individualism, uncertainty avoidance and masculine and feminine. The impact of these dimensions on organizational practices has also been emphasized in the work of (Dimitrov, 2014). Also, the effects of national cultures have been investigated on how they influence the development of performance management systems in the global economic space (Jwijati, Bititci, Caldwell, Garengo, & Dan, 2022). The power distance dimension is particularly of interest in this study.

Power distance

Power distance can be expressed as the perception individuals have about the unequal distribution of power and how this perception influences their own behavior. The power distance concept was coined by Mulder in his attempt to describe the disparity in power possession between leaders and their subordinates (GLOBE, 2004). This was later espoused as a dimension of national culture in Hofstede (1980b) study of national cultures. Hofstede (2001) defined power distance as the degree to which the relatively less powerful members of the society accept the unequal distribution of power as a normal phenomenon. Power distance as expressed by Hofstede indicates to what extent social inequality and hierarchy in social relations are accepted within a society or an organization (Hofstede, 1980b). Accordingly, while the unequal distribution of power is accepted as normal and legitimate in communities with high power distance, in societies with low power distance, the inequality of power is questioned, and justification demanded by members of the society (Hofstede, 1984). In other

words, in societies with low power distance, inequality of power distribution is seen as an unacceptable situation.

Empirical studies into the power distance concept have prompted further studies into the concept, especially at the organizational level (Kim & McLean, 2014; Yorulmaz, Colak, Altinkurt, & Yilmaz, 2018). In one of those studies conducted in schools in Turkey, a factor analysis established that power distance itself consists of four dimensions, namely, the acceptance of power, the justification of power, the instrumental use of power and the acquiescence of power (Yorulmaz, Colak, Altinkurt, & Yilmaz, 2018). *Justification of power* is the effort of employees to attribute the unequal distribution of power within the organization to a just cause or it is an effort to rationalize it. In such a situation, organizational members resort to laws, rules, and valid social norms to justify this phenomenon. When hierarchical social and organizational relationships are supported by law, the legitimacy of power distance may increase. Another dimension is the *instrumental use of power* which is about gaining unfair privileges by establishing proximity to a powerful individual in a society or organization. Individuals who use power instrumentally believe that they will gain an advantage when they are close to their managers or leaders. *The acceptance of power* dimension, however, refers to a situation where employees accept and do not question the unequal distribution of power within an organization. In other words, the acceptance of power can be defined as the situation in which the members of a society or an organization give importance to and respect the opinions and thoughts of individuals in positions of power. *The acquiescence of power* on the other hand is the low belief held by employees about their ability to influence management decisions and practices due to possible risks associated with challenging authority. Acquiescence of power is characteristic of societies and organizations with a high-risk perception associated with objecting to managerial decisions and a dominant culture of fear and silence (Yorulmaz et al., 2018).

Organizational power

Organizational power is a tool used to influence individuals in a desired direction. Thus, organizational power affects decisions and shapes an organization in tremendous ways. According to Urwick (1944), organizational power is the ability to get things done at the workplace. Gardner (1990) also defines organizational power as the capacity to produce specific and targeted results through the behavior of others. The two definitions emphasize task accomplishment and the second one stressed the influence of other people. This is crucial because the use of power in a social context presupposes the presence of more than an individual. Thus, any social group or organization for that matter—entails power dynamics. Since power is about affecting people in an organization, this influence can come from both subordinates and organizational leaders. Also, it will be hard to determine the direction of the influence of power. Therefore, it is possible to use power in organizations as an element that facilitate or hampers the achievement of organizational goals. Organizational power stems from several sources including but not limited to having control over the distribution of organizational resources and by virtue of the position one occupies in the organization.

As hinted above, a source is needed for power to exist. With this resource, the individual gains influence. The power bases used in organizations have been classified in some research (Bacharach & Lawler, 1982; Erturk, 2007). French and Raven (1959) categorized power bases under five different titles namely, legitimate power, charismatic power, expert power, coercive power, and reward power. These power sources are also called power types.



The effects of power bases on the perception of power distance

This study in exploring the influence of the various types of power on the perception of power distance draws inspiration from theoretical studies like (Hofstede, 1980a, GLOBE, 2004, Dimitrov, 2014) and Empirical like (Basabe and Ros, 2005, Khatri, 2009) that have proven that a leader's cultural disposition has the capacity to influence the actions and behaviors of an organizational leaders. And more so, that the influence of national culture in organizational life is pervasive. For instance, Kim & McLean (2014) have stressed the importance of national culture in organizational learning. In the myriad ways that power influences organizational behavior, one of eminence is how the use of power can influence the power distance perceptions of organizational members. Moreover, previous studies on power distance highlight other important issues related to high power distance. According to Hofstede (1986), in high power distant societies, the teacher cannot be criticized explicitly by the student, the teaching process is teacher-centered, and in student-teacher conflicts, parents are expected to stand by the teacher. In societies with low power distance, the situation is the opposite. Dennehy (2015) found in his study that Asian students were more cautious in discussing with their instructors compared to their western counterparts. On teaching and learning, constructivist and collaborative teaching methods used in low power distance societies resulted in great failures in high power distance societies (Gervedink Nijhuis, Pieters, & Voogt, 2013) since discussions in high power distance societies are not effective since the less powerful cannot speak freely for fear of disrespecting or wronging their teachers who are in positions of power. According to Kirlidog & Agaoglu (2004), education in high power distance societies is teacher centered. In this case, the quality of education directly depends on the competencies of the teachers. In such school's knowledge and interaction are in one direction. Only students are affected by teachers.

Empirical research exploring the power types used by school principals have revealed that legitimate power, charismatic power, expert power, coercive power, and reward power are used in schools (Helvacı, & kayalı, 2011; Memduhoglu & Turhan, 2016; Karaman, 2018). Also, the potential influence of power bases on other organizational phenomena have been widely studied. For instance, Okan & Ahmet (2015) have studied the potential influence of power bases on school climate where the results established a significantly positive relationship between the two variables. Another study by Altinkurt & Yilmaz (2012) have established the influence of power bases on organisational citizenship. Other studies have explored the relationship the influence of power bases on other organizational phenomena (Yilmaz & Altinkurt, 2012; Deviren & Okcu, 2020).

Considering the potential negative implications of high-power distance perception and the pervasive influence of power on organizational life as discussed in the paragraphs above it is pertinent that power which is one of the most common instruments of influence in organizations be studied to explore its potential influence on power distance perception. Especially a study by Deviren & Okcu (2020) assessing the effects of power on organizational silence shows a positive relationship. As discussed above high-power distance societies are not open to discussions between leaders and subordinates and so this finding (Deviren & Okcu, 2020) by further throw wait on the study of the effects of power bases on power distance perception. Understanding the effects of power bases on power distance would allow for a more cautious and informed use of the various types of power in ensuring a healthy school environment where teachers contribute their best to not only teaching but to the management process as well.

A comparative study was adopted to ensure that there is opportunity to compare the influence

of the use of power across cultures of similar cultural orientation in terms of power distance which according to (Hofstede, Hofstede & Minkov, 2010) both Turkey and Ghana ranked 66 and 77 respectively. While the power bases and the power distance have been examined separately in the Turkish educational context (Kirlidog & Agaoglu, 2004, Yaman and Irmak, 2010, Altinkurt and Yilmaz, 2012 and Atmaca, 2014), the above-mentioned concepts have not been widely studied in educational institutions in Ghana (Gervedink Nijhuis, Pieters, & Voogt, 2013).

Based on this context this research aims to fill the gap in the literature by conducting a comparative study to explore the effects of the independent variable (power bases) on the dependent variable (power distance) in both Turkey and Ghana and to make an original empirical contribution to the literature. To achieve this, the following questions shall be explored.

- (1) According to the perception of teachers, which power sources do school principals' use and at what level?
- (2) Is there a significant difference between the power sources used by school principals working in Mugla and Tamale?
- (3) How are teachers' perceptions of organizational power distance?
- (4) Is there a significant difference between the power distance perception of teachers working in Mugla and Tamale?
- (5) Are power bases predictive of power distance perceptions?

Method

Research model

This research is designed using a cross-sectional prediction design, a type of correlational study where data are collected from a sample drawn from a predetermined population (Cohen, Manion & Morrison, 2017; Fraenkel, Wallen, & Hyun, 2018). A correlation study is design to explore the relationship between variables (Fraenkel, Wallen, & Hyun, 2018). The views of the participants were described and compared according to various variables. In addition, the correlation between the variables was examined.

Population and sample

The study population consisted of teachers working in primary, middle and high schools in the 2018-2019 academic years in Mugla (Turkey) and Tamale (Ghana). There were 10,181 teachers working in 625 schools in the Mugla Province and 4793 teachers working in 272 schools in the Tamale Metropolis. Simple random sampling technique was used in determining the sample of the study. Simple random sampling technique is a technique in which all members of the population have an equal chance of being selected (Buyukozturk, Kilic-Cakmak, Akgun, Karadeniz, & Demirel, 2016).

The sample size (for a 95% confidence level) was determined, using sampling tables (Sahin, 2014, 127), to be at least 378 for the Mugla population and at least 357 for the Tamale population. Within this framework, 408 participants were reached in the Mugla population, and the opinions of 407 participants were evaluated. In the Tamale population, 393 participants were reached and the opinions of 384 participants were evaluated. It was observed that 35% (n = 133) of the teachers included in the Mugla sample were male and 64% (n = 244) were female. In addition, more than 80% of the participants had undergraduate



degrees (n = 305) and superintendent (Rank of teachers serving four or more years) (n = 322). More than 75% of the teachers work in secondary schools (n = 134) and high schools (n = 164). It was observed that 70% (n = 288) of the teachers included in the Tamale sample were male and 28% (n = 117) were female. In addition, more than half of the participants were undergraduate (n = 242) and superintendent (n = 241). The distribution of teachers in the educational levels were as follows; primary school (151), secondary school (n = 127) and high school (n = 128).

Data collection tools

Two scales were administered in the data collection process. The first scale "Power Types Scale" is a four-point likert scale developed by Kosar (2008). The scale consists of four dimensions (33 items). The dimensions in the scale are personality power (charisma and expert) (15 items), reward power (7 items), legitimate power (7 items), and coercive power (4 items). The score obtained from each dimension indicates the level that power type is used. The total variance explained by the scale is 71.46% and a Cronbach's Alpha value of (.81-.98). this value measures how closely the items in a scale are related and so proves the reliability of the scale. A Cronbach alpha value of .70 is acceptable (George and Mallery, 2003 cited in. Gliem, & Gliem, 2003). A reliability test conducted for this study revealed Cronbach's Alpha value as .82-.98 for the Mugla sample and .78-.93 for the Tamale sample.

The second scale, "Organizational Power Distance Scale" was developed by Yorulmaz et al. (2018). The 5-point likert scale consists of four dimensions (20 items). The dimensions included in the scale are Acceptance of Power (6 items), Instrumental use of power (5 items), Justification of power (3 items), and Acquiescence of Power (6 items). There are three reverse scored items (2, 4 and 13) in the scale. The scores obtained from each dimension indicate teachers' perceptions of power distance towards that dimension. The total variance explained by the scale is 56.58% and a Cronbach's Alpha (.74-.80) (Yorulmaz et al., 2018, p.682). A reliability test for this study revealed Cronbach's Alpha value as .75-.79 for the Mugla sample and .75-.76 for the Tamale sample.

Analysis of data

SPSS program (23) was used to analyze the data in the research. To determine the outlier values in the data, outlier analysis was made. Accordingly, from the Mugla sample, one questionnaire and from the Tamale sample nine questionnaires were found as outliers and excluded from the data set. The skewness and kurtosis coefficients were examined to determine whether the data collected for the variables were normally distributed. For the Mugla sample the *power types* showed a normal distribution with skewness (-.59 - .20) and kurtosis (-1.27 - .47) and the *power distance* also showed a normal distribution with skewness (.06 - 0.56) and Kurtosis (-1,13 - .25). Similarly, in the Tamale sample normality was established for both power types with skewness (-.78 - .18) and kurtosis (-.86 - 1.2) and power distance with skewness (-.54-1.03) and Kurtosis (-.87-.59). According to Tabachnick and Fidell (2013), skewness and Kurtosis values are between -1.5 and between +1.5 indicates the normal distribution of the data.

In the analysis of the data, descriptive statistics were used to determine the power sources used by school principals and the power distance perception of teachers according to the views of the participants. T-test was used to determine the significant differences between variables. An alpha level of .05 was adopted in this study. A correlation coefficient of an absolute value less than .10-.29 was defined as a low, a medium relationship between .30 and

.49, and a high level of correlation between .50-1.00 (Pallant, 2010).

Results

Power preferences of school principals

Table 1. Power Types -T-Test for Country Variable Mugla- Tamale Samples

Dimenions	variables	n	M	SD	df	t	p
Reward power	Mugla	336	3.84	.82	663	5.08	.00
	Tamale	364	3.46	1.12			
Legitimate power	Mugla	351	2.73	.77	721	5.79	.00
	Tamale	372	3.08	.85			
Coercive power	Mugla	370	1.87	.83	738	1.68	.09
	Tamale	385	1.98	1.00			
Personality power	Mugla	349	3.47	1.04	681	.63	.53
	Tamale	347	3.42	.90			

As seen in Table1, according to the opinions of the teachers in the Mugla sample, the power preferences of the school principals are reward power ($M = 3.84$, $SD = .82$), personality power ($M = 3.47$, $SD = 1.04$), legitimate power ($M = 2.73$, $SD = .77$) and coercive power ($M = 1.87$, $SD = .83$), respectively. According to the opinions of the teachers in the Tamale sample, school principals' power preferences are as follows; reward power ($M = 3.46$, $SD = 1.12$), personality power ($M = 3.42$, $SD = .90$), legitimate power ($M = 3.08$, $SD = .85$) and coercive power ($M = 1.98$, $SD = 1.00$). A t-test was conducted to determine the statistical significance of the differences in power preference among schools across the two countries. The results of this showed a statistically significant difference according to the country variable in the reward power dimension [$t_{(663)} = 5.08$, $p < .05$] and the legitimate power [$t_{(721)} = 5.79$, $p < .05$] dimension. The difference in the coercive power [$t_{(738)} = 1.68$, $p > .05$] and the personality power [$t_{(681)} = .63$, $p > .05$] dimensions are not significant. According to this, school principals in Mugla use the reward power more, while school principals in Tamale use the legitimate power more.

Table 2. Power Distance-T-Test for Country Variable Mugla-Tamale Sample

Dimensions	Variables	n	M	SD	df	t	p
Acceptance of power	Mugla	364	2.84	.66	730	8.95	.00
	Tamale	368	3.28	.64			
Instrumental use of power	Mugla	371	1.94	.78	722	21.32	.00
	Tamale	382	3.32	.99			
Justification of power	Mugla	370	1.89	.65	742	22.02	.00
	Tamale	374	3.00	.73			
Acquiescence of power	Mugla	363	2.47	.78	723	6.61	.00
	Tamale	375	2.88	.91			

As seen in Table 2, the power distance perceptions of the teachers in Mugla sample are as follows; *acceptance of power* ($M = 2.84$, $SD = .66$), *acquiescence of power* ($M = 2.47$, $SD = .78$), *instrumental use of power* ($M = 1.94$, $SD = .78$) and *justification of power* ($M = 1.89$, $SD = .65$). Whereas the power distance perceptions of the teachers in the Tamale sample are as follows; *instrumental use of power* ($M = 3.32$, $SD = .99$), *acceptance of power* ($M = 3.28$, $SD = .64$), *justification of power* ($M = 3.00$, $SD = .73$), and *acquiescence of power* ($M = 2.88$, $SD = .91$). A t-test was conducted to determine whether the difference between the two samples were statistically significant. According to the results of this test; the *acceptance of power* [$t_{(730)} = 8.95$, $p < .05$], the *instrumental use of power* [$t_{(722)} = 21.32$, $p < .05$], the

justification of power [$t_{(742)} = 22.02, p < .05$] and the acquiescence of power [$t_{(723)} = 6.61, p < .05$] dimensions were found to differ significantly. According to this, teachers' perception of power distance in Tamale is higher than the perception of teachers in Mugla in all the dimensions.

Prediction of power distance perception of teachers by the power types used by school administrators

The findings of the study regarding the prediction of the power types used by school administrators on the power distance perceptions of teachers are given below.

Table 3. Regression Analysis Results Regarding the Prediction of Power Distance by Power Types (Mugla)

	Variable	B	Standard error	β	t	p	Binary r	Partial r	
Acceptance of power	Constant	2.415	.262		9.216	.000			R = .291
	Reward P.	-.116	.070	-.148	-1.672	.096	-.100	-.096	R ² = .071
	Legitimate P.	.031	.062	.037	.496	.621	.030	.028	F (4-279) =
	Coercive P.	.003	.066	.004	.048	.962	.003	.003	6.433
	Personality P.	.242	.055	.385	4.364	.000	.253	.250	p = .00
Instrumental use of power	Constant	1.431	.315		4.551	.000			R = .277
	Reward P.	-.198	.083	-.211	-2.390	.018	-.141	-.137	R ² = .064
	Legitimate P.	.075	.075	.075	1.010	.313	.060	.058	F (4-281) =
	Coercive P.	.147	.079	.159	1.864	.063	.111	.107	5.833
	Personality P.	.241	.067	.318	3.608	.000	.210	.207	p = .00
Justification of power	Constant	1.638	.263		6.228	.000			R = .164
	Reward P.	-.055	.070	-.073	-.797	.426	-.048	-.047	R ² = .013
	Legitimate P.	-.070	.062	-.086	-1.127	.261	-.067	-.066	F (4-280) =
	Coercive P.	.135	.066	.179	2.056	.041	.122	.121	1.930
	Personality P.	.126	.056	.206	2.262	.024	.134	.133	p = .106
Acquiescence of power	Constant	1.886	.317		5,954	.000			R = .182
	Reward P.	-.014	.083	-.015	-.169	.866	-.010	-.010	R ² = .019
	Legitimate P.	.141	.075	.144	1.892	.060	.113	.112	F (4-278) =
	Coercive P.	.051	.078	.057	.653	.514	.039	.039	2.388
	Personality P.	.051	.067	.069	.764	.446	.046	.045	p = .051

The results of the regression indicated that two predictors explained 7.1% of the total variance in the *acceptance of power* dimension (R² = .071, F (4, 279) =6.43, p <.05). It was found that personality power significantly predicted the acceptance of power dimension ($\beta = .039, p <.05$).

$$\text{Acceptance of Power} = 2.415 + (.242 \times \text{Per.P}) + (.003 \times \text{Coer.P.}) + (.31 \times \text{Leg.P.}) - (.116 \times \text{Rew.P.})$$

For the instrumental use of power, two predictors explained 6.4% of the total variance in the instrumental use of power dimension (R² = .064, F (4, 281) =5.83, p <.05). It was found that reward power significantly predicted the instrumental use of power ($\beta = -.21, p <.05$), as did personality power ($\beta = .32, p <.05$).

$$\text{Instr. Use of P.} = 1.431 - (.198 \times \text{Rew. P.}) + (.241 \times \text{Per. P.}) + (.075 \times \text{Leg. P.}) + (.147 \times \text{Coer. P.})$$

For the justification of power, none of the predictors significantly explained the total variance in that dimension (R² = .013, F (4, 280) =1.93, p >.05).



$$\text{Just. of P.} = 1.638 + (.135 \times \text{Coer. P.}) + (.126 \times \text{Pers. P.}) - (.070 \times \text{Leg. P.}) - (.055 \times \text{Rew. P.})$$

For the quiescence of power dimension, none of the predictors significantly explained the total variance in this dimension ($R^2 = .019$, $F(4, 278) = 2.39$, $p > .05$).

Table 4. Regression Analysis Results Regarding the Prediction of Power Distance by Power Types (Tamale)

	Variable	B	Standard error	β	t	p	Binary r	Partial r	
Acceptance of power	Constant	1.870	.152		12.307	.000			R = .533
	Reward P.	.002	.046	.004	.045	.964	.003	.002	$R^2 = .274$
	Legitimate P.	.226	.054	.302	4.214	.000	.247	.216	$F(4-273) =$
	Coercive P.	-.030	.038	-.046	.782	.435	-.047	-.040	27.100
	Personality P.	.220	.053	.310	4.120	.000	.242	.211	$p = .00$
Instrumental use of power	Constant	.608	.223		2.725	.007			R = .610
	Reward P.	.142	.066	.160	2.133	.034	.126	.100	$R^2 = .363$
	Legitimate P.	.209	.078	.175	2.672	.008	.157	.126	$F(4-284) =$
	Coercive P.	.079	.056	.076	1.417	.158	.084	.067	42.036
	Personality P.	.405	.078	.360	5.210	.000	.30	.245	$p = .00$
Justification of power	Constant	2.496	.195		12.788	.000			R = .177
	Reward P.	.021	.057	.034	.364	.716	.02	.021	$R^2 = .018$
	Legitimate P.	-.034	.068	-.041	.504	.615	-.03	-.030	$F(4-280) =$
	Coercive P.	.030	.048	.042	.626	.532	.04	.037	2.268
	Personality P.	.136	.068	.173	1.981	.049	.12	.117	$p = .06$
Acquiescence of power	Constant	.745	.229		3.256	.001			R = .498
	Reward P.	.003	.068	.004	.042	.966	.003	.002	$R^2 = .237$
	Legitimate P.	.249	.080	.224	3.121	.002	.183	.161	$F(4-281) =$
	Coercive P.	.175	.058	.178	3.025	.003	.178	.157	23.140
	Personality P.	.297	.080	.284	3.692	.000	.215	.191	$p = .00$

The results of the regression indicated that two predictors explained 27.4% of the total variance in the *acceptance of power* dimension ($R^2 = .274$, $F(4, 273) = 27.10$, $p < .05$). It was found that legitimate power significantly predicted the acceptance of power dimension ($\beta = .30$, $p < .05$), as did personality power ($\beta = .31$, $p < .05$).

$$\text{Accep. of P.} = 1.87 + (.226 \times \text{Leg. P.}) + (.220 \times \text{Per. P.}) + (.002 \times \text{Rew. P.}) - (.30 \times \text{Coer. P.})$$

For the instrumental use of power dimension three predictors significantly explained 36.3% of the total variance in this dimension ($R^2 = .363$, $F(4, 284) = 42.04$, $p < .05$). It was found that reward power significantly predicted the instrumental use of power ($\beta = .16$, $p < .05$), as did legitimate power ($\beta = .18$, $p < .05$) and personality power ($\beta = .36$, $p < .05$).

$$\text{Instr. Use of P.} = .608 + (.142 \times \text{Rew. P.}) + (.209 \times \text{Leg. P.}) + (.405 \times \text{Per. P.}) + (.079 \times \text{Coer. P.})$$

For the justification of power dimension, only one predictor significantly explained 1.8% of the total variance in this dimension ($R^2 = .018$, $F(4, 280) = 2.27$, $p < .05$). It was found that personality power significantly predicted the justification of power dimension ($\beta = .17$, $p < .05$).

$$\text{Justif. of P.} = 2.496 + (.136 \times \text{Pers. P.}) + (.021 \times \text{Rew. P.}) + (.209 \times \text{Leg. P.}) + (.03 \times \text{Coer. P.})$$

For the acquiescence of power dimension, three predictors significantly explained 23.7% of the total in this dimension ($R^2 = .237$, $F(4, 281) = 23.14$, $p < .05$). It was found that legitimate



power significantly predicted the acquiescence of power dimension ($\beta = .22, p < .05$), so did coercive power ($\beta = .18, p < .05$) and personality power ($\beta = .28, p < .05$).

$$\text{Acqu. of P.} = .745 + (.249 \times \text{Leg. P.}) + (.175 \times \text{Coer. P.}) + (.297 \times \text{Pers. P.}) + (.003 \times \text{Rew. P.})$$

Discussion

In this study the effects of the power bases used by school principals and how it influences teachers' perception of power distance was examined. Exploring the first question about the various types of power used by principals and the level at which they use them, it was established that both samples' principals, in a decreasing order, prefer reward power, personality power (charismatic and expert power), legitimate power and coercive power. So, for both samples the most used power base is the reward power, and the least used power base is the coercive power. Similar findings were recorded in (Okan & Ahmet, 2015) study of the power types used by school principals and its effects climate. Contrary to this finding, some studies show that legitimate power is the most widely used power base in schools (Arslantas & Dayanan-Ugur, 2018; Memduhoglu & Turhan, 2016; Altinkurt, Yilmaz, Erol, and Salali, 2014 and Bakan & Buyukbese, 2010). There was almost a consensus in the literature about coercive power as the least used power in the literature (Uludag-Kodal, 2019; Arslantas & Dayanan-Ugur, 2018; Memduhoglu & Turhan, 2016; Ucar, 2016; Okan & Ahmet, 2015; Altinkurt, Yilmaz, Erol, and Salali, 2014; Bakan & Buyukbese, 2010) including the findings of this study.

While most of the literature reported legitimated as the used power, this study reported reward power. The difference could be accounted for by considering the nature of the two power types: reward and legitime power. Usually, power is understood as the capacity to reward or punish (Blau, 1986, cited in Alkan & Erdem, 2019; Speer, 2008 cited in Le Roux, 2012) and so this understanding could have hugely influenced the participants to perceive the good behaviors of their principals towards them as reward. Also, it could be due to developments in principal behavior that emphasises the use of different means of influence especially with regards to new teachers (Memduhoglu & Turhan, 2016). In a like manner Altinkurt et al., (2014) described reward power as an extension of legitimate power.

The second question this study explored was the difference in the used of power types across the two samples. Though the study revealed that principals have similar preferences, an independent t-test conducted found that there was a significant difference in the reward power and legitimate power dimensions, but the difference in the coercive power and personality power dimensions was not significant. Accordingly, whereas school principals in Mugla use reward power more, the school principals in Tamale use legitimate power more. Just as the perception regarding the various types of power can vary between cultures, the relationships between each other can also vary from culture to culture (Alkan & Erdem, 2019). According to Akyol (2009), cultural differences may influence the choice of the power types used.

The third question explored the dependent variable regarding the level of power distance perceptions among teachers in the two samples. In the Mugla sample, teachers power distance perception was between low -moderate ($M=1.89-2.84$), whereas in the Tamale sample teachers' perception of power distance was moderate in all the dimensions. In the case of Mugla, previous empirical studies proved that similar results have been obtained about the levels of power distance perceptions in educational institutions (Deniz, 2013; Gul, 2019; Gulec, 2010; Gol Dede, 2019). Contrary to this, Yaman and Irmak (2010) study of the power distance relationship between school principals and teachers' shows that power distance is

high in Turkish schools. In the case of Ghana and for that matter Tamale studies investigating power distance reported high levels of power distance orientation (Owusu Ansah & Louw, 2019; Dotse & Asumeng, 2014).

An independent t-test was conducted to establish the statistical significance of the differences between the two samples in terms of their power distance perceptions. The results showed a statistically significant difference such that the perception of power distance in the Tamale sample (in all dimensions) was higher than in the Mugla sample. This finding is like (Hofstede, Hofstede, and Minkov, 2010) findings where Ghana ranked 77 and Turkey ranked 66. This difference can be explained by the culture and the demography of the two samples. According to Hofstede (1980a), power distance is one of the sub-dimensions of culture. Also, Hofstede et al. (2010) considered modernization experience, the level of welfare and the level of democratization among the factors that reduce organizational power distance. Indeed, according to the 2018 Human Development Index, Turkey ranked 59th among 189 countries while Ghana ranked in 142 (HDR, 2019). A similar result can be seen in the Social Development Index. This index is a measurement tool based on three dimensions that focuses on social performance, its non-economic dimensions, and determines it in a transparent, comprehensive, and systematic manner. These dimensions are basic needs, health needs and opportunities (Sokmen, 2014). According to the 2019 index's report, while Turkey ranked 71st Ghana ranked 95th (SPI, 2019). These statistics clearly demonstrate the difference in the level of modernization between the two countries.

The last question that study intended to answer was whether the power bases used by school administrators predict teachers' perception of power distance. All the types of power used by school administrators have little effect on teachers' perception of power distance in the Mugla sample, unlike in the Tamale sample. In the Mugla sample, it was found that the *acceptance of power dimension* was significantly predicted only by personality power, The *instrumental use of power dimension* by reward power and personality power and the *justification of power dimensions* by coercive and personality power respectively. In the Tamale sample, the *acceptance of power dimension* was significantly predicted by legitimate power and personality power, *the instrumental use of power dimension* by reward power, legitimate power, and personality power, *the justification of power dimension* by personality power and *acquiescence of power dimension* by coercive power, legitimate power, and personality power.

When the regression analysis is examined taking into consideration the power types; in both Mugla and Tamale samples, the power type that most influenced teachers' perception of power distance was the personality power (charismatic and expert power). It was determined that the personality power used by the school principals predicted power distance significantly for all the dimensions of power distance except the *acquiescence of Power* dimension in the Mugla sample and in all dimensions in the Tamale sample. In other words, as the school principals' use of personality power increases, teachers' perception of power distance increases significantly. Personality power encompasses both expert power and charismatic power. This power is based on the knowledge and communication skills of the manager. Since such a power is based on the trust in a person's characteristics, the decisions taken by such people are often carried out without inquiry which can easily translate into unquestionable acceptance of his expert ability by employees (Kosar, 2008).

The power, which has a secondary effect on power distance, was found to be legitimate power in the Tamale sample. Legitimate power had a positive effect on all the dimensions of power



distance except the *justification of power* dimension. In other words, as school principals' use of legitimate power increases, teachers' perception of power distance increases. According to (Yilmaz & Altinkurt, 2012), legitimacy as a formal power is determined by laws and it is accepted by all members of the organization most of the time. In other words, there is little resistance to formal authority. Thus, the decisions taken, and the work done by a person of authority are not expected to be questioned by the employees. However, in the Mugla sample, it was found that legitimate power had no effect on any dimension of power distance. The reason for this is that school principal's use of legitimate power in the Mugla sample, as can be seen in the t-test results, is lower compared to that of the Tamale principals and that formal authority in the Turkish context does not preclude the authority of teachers.

The only power with a significantly negative effect on power distance is the reward power. In the Mugla sample, reward power significantly predicted the *instrumental use of power* dimension negatively. In other words, as the use of reward power increases, teachers' power distance perception levels decreased. Some seemingly simple actions of school administrators like thanking and praising teachers, making teachers' work easier and so on can have a decreasing effect on the power distance perception of teachers. In addition to that, reward power is effective in developing intimate interactions between teachers and administrators. According to the research results of (Blase & Blase 1999), teachers are better affected by the instructional leadership of administrators who use praises, which is a feature of reward power. However, in the Tamale sample, reward power used by school administrators positively predicts the teachers' perception of power distance. In other words, the use of reward power led to an increase in teachers' power distance perceptions. This sharp contrasting result could be dependent on the Tamale teachers' perception of rewards as a form of social expectation, where rewards must be followed by a reciprocating action from the rewardee usually expressed in terms of obedience to the awardee (Czap & Czap, 2020).

Implications

As already hinted in the literature review, high power distance has pragmatic implications on management practices. To begin with, the high scores show that the teachers in Tamale see the unequal distribution of power as a more acceptable and legitimate distribution than the ones in Mugla. In this context, it can be stated that the hierarchical order in the schools in Tamale and the power relations of the employees with each other are very important at the organizational level. At the same time, the high-power distance in both countries, especially in the *instrumental use of power* and the *acquiescence of power* dimensions points to structural problems. In other words, because the healthy rational bureaucracy pointed out by Weber does not function well and the fact that rules differ from person to person, people feel the need to be closer to a powerful person. This is a structural problem, and at the heart of structural problems there are mental or cognitive structures that underpin societal behavior patterns. According to Bourdieu (2014), These mental or cognitive structures that help people engage with the social world are expressed as habitus. If there is a wrong programming (Hofstede et al., 2010) in these mental structures, it causes the whole system to be pathological and thus will not function properly. Therefore, in societies with a high-power distance perception, individuals learn to adapt and live life by internalizing the pathological structural system. In this context, the *instrumental use of power* and the *acquiescence of power* are the inevitable outcomes of the unhealthy structural order.

Furthermore, in organizations where the power distance perception is high, employees cannot directly express their opinions and object to their managers in the administrative processes.

According to Hofstede et al. (2010), the relationship between managers and workers in high power distance societies emerges as either 'excessive commitment' or 'counter-commitment'. In the former case, employees willingly surrender themselves paternally to the supervision of the manager, whereas in counter-commitment, employees are negatively dependent on the manager and cause polarization to come to the fore in the organization. In this sense, high power distance negatively affects the organization in achieving its goals. In comparing Turkey and Ghana, taking into consideration their power distance perceptions, it goes without saying that Ghana's situation leaves much to be desired. While the unequal distribution of power is accepted as normal and legitimate in communities with high power distance, in societies with low power distance, the inequality of power is questioned, and justification demanded by members of the society (Hofstede, 1984). In other words, in societies with low power distance, inequality of power distribution is seen as an unacceptable situation. Basabe and Ros (2005) stated that there is an extreme degree of human rights violation in high power distance societies. The leaders in these societies endeavor to elicit obedience to their commands by using coercive force. According to Khatri (2009), there are communication gaps in organizations with high power distance. It has also been argued that in these organizations, all decisions are taken by the organization members who hold hierarchically higher positions, so managers are provided with unlimited power over employees. In such organizations, the managers are not obliged to consult employees, so managers benefit less from the expert power of employees.

Studies conducted in educational institutions also revealed the harmful effects of high-power distance. In Shengnan and Hallinger (2020) research, it was determined that teachers with low power distance perception perceive the instructional leadership level of the school principal as higher than teachers with high power distance perception. In Gul's (2019) research, it was revealed that power distance predicted leader member interaction such that when the power distance level decreases, the interaction increases. In this context, low level of power distance is important for a healthy organizational dialogue or discourse.

Conclusion

This study has shed light on the power types that enhance high power distance and perceptions and those that decrease it. And in the light of the available literature and findings made in this study, we can conclude that power distance perceptions of teachers affect effective engagement in school management which can intend affect performance, and that principals' use of power type influences teachers' perceptions of power distance.

Suggestions

Power distance is a cultural transgression into organizational life. While a complete isolation of societal culture cannot be achieved, measures can be taken to ensure that the effects of power distance is brought to a minimum by the cautious use of power types that decrease high power distance like reward power. Also, it must be emphasized that the use of this power be established on a merit-based scale and institutionalized so that rewards have no direct link to an individual person thereby reducing the social expectation that would naturally emanate from feeling obliged to someone for a favor they have done you.

Furthermore, power distance is characteristic of hierarchical organizations. In these organizations, the higher one climbs the organizational ladder the more power one gets and so the use of this power cannot be questioned by employees due to the prevalent high power distance perception. This situation leads to violations of rights and corruption in



organizations. Therefore, it is imperative that efforts be made to create a more democratic school environment where participation is valued and backed by regulations.

During this research especially in the Ghanaian context there wasn't enough empirical investigations in schools about power distance and power types in schools. Within this context, new research can be conducted to explore these topics in schools. Furthermore, the limitation of this research is that it is based on the views of teachers, therefore, to understand the impact of power relations between students and teachers and between principals and teachers, further research could be conducted based on the views of students and principals. Also, further research could explore how power distance perceptions of students affect their engagement with a teacher in the classroom. And finally, a qualitative study with the same variables can even be more revealing.

References

- Akyol, S. (2009). *Power distance and leadership relation in organizational culture*, (Unpublished Doctoral Dissertation). Marmara University, Social Sciences Institute: Istanbul.
- Alkan, A. & Erdem, R. (2019). Power: A conceptual overview to power in terms of formal and informal aspects. *Suleyman Demirel University Visionary Journal*, 10(24), 405-433. doi: 10.21076/vizyoner.472535
- Altinkurt, Y. & Yilmaz, K. (2012). Relationship between school administrators' organizational power sources and teachers' organizational citizenship behaviors. *Educational Sciences: Theory and Practice*, 12(3), 1833-1852. <https://eric.ed.gov/?id=EJ1000899>
- Altinkurt, Y., Yilmaz, K., Erol, E. & Salali, E.T. (2014). Relationship between school principals' use of power sources and teachers' organizational cynicism perceptions. *Journal of Teacher Education and Educators*, 3(1), 25-52. <http://dergipark.org.tr/tr/pub/jtee/issue/43256/525380>
- Arslantas, H.I., Dayanan-Ugur, I. (2018). The examination of level of organizational power sources owned by administrators according to perceptions of teachers. *Journal Of Social Sciences Institute*, 11, 46-63. <http://dergipark.org.tr/tr/pub/susbid/issue/38160/403353>
- Atmaca, T. (2014). *Relationship among the power types of school principals' and teachers' mobbing, organizational commitment and organizational cynicism perception*, (Unpublished Master's Thesis). Gazi University, Education Sciences Institute: Ankara.
- Bacharach S. B. & Edward J. Lawler (1982). *Power and politics in organizations*. California: Jessey- Bass Publishers.
- Bakan, I, & Buyukbese, T . (2010). Leadership “types” and “power supplies” on the current-prospective status comparison: A case study based on perceptions of educational institution managers: *Karamanoglu Mehmetbey University Journal of Social and Economic Research*, 2, 73-84. Retrieved from <http://dergipark.org.tr/tr/pub/kmusekad/issue/10217/125592>
- Basabe, N. & Ros, M. (2005). Cultural dimensions and social behavior correlates: individualism-collectivism and power distance. *International Review of Social Psychology*, 18(1), 189-225. Retrieved from https://www.researchgate.net/publication/252192818_Cultural_dimensions_and_social_behavior_correlates_Individualism-Collectivism_and_Power_Distance
- Blase, J., & Blase, J. (1999). Principals' instructional leadership and teacher development: teachers' perspectives. *Educational Administration Quarterly*, 35(3), 349–378. doi:10.1177/0013161x99353003

- Bourdieu, P. (2014). The Habitus and the Space of Life-styles (1984). In *The people, place, and space reader* (pp. 173-178). Routledge.
- Buyukozturk, S.; Kilic Cakmak, E.; Akgun, O. E.; Karadeniz, S. & Demirel, F. (2016). *Bilimsel arastirma yontemleri* [Scientific research methods]. Ankara: Pegem Akademi.
- Cohen, L., Manion, L., & Morrison, K. (2017). *Research Methods in Education* (8th ed.). Routledge.
- Czap, H. J., & Czap, N. V. (2020). 'I Gave You More': Discretionary Power in a Corruption Experiment. *Journal of Interdisciplinary Economics*, 32(2), 200–217. <https://doi.org/10.1177/0260107919848640>
- Dayanan-Ugur, I. (2018). *Examining the relationship between power bases and conflict management styles of school administrators according to perceptions of teachers* (Unpublished Master's Thesis). Siirt University, Social Sciences Institute: Siirt.
- Deniz, A. (2013). *The relationship between power distance and organizational commitment at schools*, (Unpublished Master's Thesis). Balikesir University Social Sciences Institute: Balikesir.
- Dennehy, E. (2015). Hofstede and learning in higher level education: An empirical study. *International Journal of Management in Education* 9(3), 323-339. doi: 10.1504/IJMIE.2015.070125
- Deviren, I., & Okcu, V. (2020). Examining the relationship between the organizational power sources used by primary school principals and the organizational silence and motivation levels of teachers. *Journal of Social and Humanities Sciences Research*, 7(52), 915-932.
- Dimitrov, K., (2014) Geert Hofstede et al's Set of National Cultural Dimensions – Popularity and Criticisms. *Economic Alternatives journal*, 2, 30-60.
- Dotse, J., & Asumeng, M. (2014). Power distance as moderator of the relationship between organizational leadership style and employee work attitudes: An empirical study in Ghana. *International Journal of Management Sciences and Business Research*.
- Erturk, A. (2007). Power and power types. *Contemporary Education Journal*, 32(343), 40-47. Retrieved from <https://docplayer.biz.tr/40633927-Cagdas-egitim-dergisi.html>
- Fraenkel, J., Wallen, N., & Hyun, H. (2018). *How to Design and Evaluate Research in Education* (10th ed.). McGraw-Hill Education.
- French, J. R. P., Jr., & Raven, B. (1959). The bases of social power. In D. Cartwright (Ed.), *Studies in social power* (pp. 150-167). Oxford: Univer.
- Gardner, J. W. (1990). *On leadership*. New York: Free Press.
- Gerhart, B. (2009). How Much Does National Culture Constrain Organizational Culture? *Management and Organization Review*, 5(2), 241-259. doi:10.1111/j.1740-8784.2008.00117.x
- Gervedink Nijhuis, C. J., Pieters, J. M., & Voogt, J. M. (2013). Influence of culture on curriculum development in Ghana: An undervalued factor? *Journal of Curriculum Studies*, 45(2), 225–250. doi:10.1080/00220272.2012.737861
- Gliem, J. A., & Gliem, R. R. (2003). Calculating, interpreting, and reporting Cronbach's alpha reliability coefficient for Likert-type scales. Midwest Research-to-Practice Conference in Adult, Continuing, and Community Education.
- Gol-Dede, D. (2019). *The relationship between power distance perceptions of teachers and their organizational silence*, (Unpublished Master's Thesis). Mugla Sitki Kocman University, Educational Sciences Institute: Mugla
- Goncalves, M. (2013). Leadership Styles: The Power to Influence Others. *International Journal of Business and Social Science* 4(4), 1-3.

- Gulec, E. (2010). *Personality traits and power distance in organizations*, (Unpublished Master's Thesis). Abant Izzet Baysal University, Social Sciences Institute: Bolu.
- HDR (Human Development Report), (2019). Beyond income, beyond averages, beyond today: Inequalities in human development in the 21st century. New York: AGS. Retrieved from <http://hdr.undp.org/sites/default/files/hdr2019.pdf>
- Helvacı, M., & Kayalı, M. (2011). Investigation of the organizational power bases used by school principals in terms of some variables (the Case of Usak). *Journal of Mehmet Akif Ersoy University Faculty of Education*, 1(22), 255-279.
- Hofstede, G. (1980a). Culture and Organizations. *International Studies of Management & Organization*, 10(4), 15–41. doi:10.1080/00208825.1980.11656300
- Hofstede, G. (1980b). *Culture's consequences: International differences in work-related values*. Beverly Hills, CA: Sage.
- Hofstede, G. (1984). *Culture's consequences: International differences in work-related values*. Abridged edition. Beverly Hills: Sage.
- Hofstede, G. (1986). Cultural differences in teaching and learning. *International Journal of Intercultural Relations*, 10(3), 301–320. doi:10.1016/0147-1767(86)90015-5
- Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions, and organizations across nations*. (2nd ed.). Thousand Oaks, London: Sage Publications.
- Hofstede, G., Hofstede G. J. & Minkov, M. (2010). *Cultures and organizations: Software of the mind*. (Revised and Expanded 3rd Edition). New York: McGraw-Hill.
- Jwijati, I., Bititci, U. S., Caldwell, N., Garengo, P., & Dan, W. (2022). Impact of national culture on performance measurement systems in manufacturing firms. *Production Planning & Control*, 1–16. <https://doi.org/10.1080/09537287.2022.2026674>
- Karaman, G. (2018). *The relationship between the power sources used by school principals and organizational silence behaviors of teachers* (Master's Thesis), the Institute of Educational Sciences.
- Khatri, N. (2009). Consequences of power distance orientation in organizations. *vision: The Journal of Business Perspective*, 13(1), 1–9. doi:10.1177/097226290901300101
- Kim, S., & McLean, G. N. (2014). The Impact of National Culture on Informal Learning in the Workplace. *Adult Education Quarterly*, 64(1), 39–59. <https://doi.org/10.1177/0741713613504125>
- Kirlidog, M. & Agaoglu, M. (2004, October). *Can e-learning systems help student-centered learning?* First International Conference on Innovations in Learning for the Future: E-learning. Istanbul, Turkey, (October 26-27) 351-361. Retrieved from https://www.academia.edu/2242002/First_International_Conference_on_Innovations_in_Learning_for_the_Future_e-Learning
- Kosar, S. (2008). *The relationship between primary school supervisors? Styles of using power in management and organizational culture*, (Unpublished Master's Thesis). Gazi University, Educational Sciences Institute: Ankara.
- Le Roux, M. J. (2012). *Principals and their possible power to influence quality education*, (Unpublished Master Thesis). University of Stellenbosch, Department of Education Policy Studies: South Africa.
- Memduhoglu, H. B. & Turhan, M. (2016). The level of use of organizational power bases by primary school principals according to teachers' opinions. *Marmara University Atatürk Education Faculty Journal of Educational Sciences*, (44), 73-90 . DOI: 10.15285/maruaebd.286486
- Okan, D. I. S., & Ahmet, A. Y. I. K. (2015). The relationship between the power bases used by school administrators and the organizational climate. *Academic Perspective, International Refereed Journal of Social Sciences*, (58), 499-518.

- Owusu Ansah, M., & Louw, L. (2019). The influence of national culture on organizational culture of multinational companies. *Cogent Social Sciences*, 5(1), 1623648. <https://doi.org/10.1080/23311886.2019.1623648>
- Pallant, J. (2010). *SPSS survival manual: A step by step guide to data analysis using SPSS* (4th ed.). Maidenhead; New York: Open University Press/McGraw-Hill.
- Sahin, B. (2014). Methodology. In. Abdurrahman, T. (Ed.), *Scientific research methods* [Scientific research methods]. Ankara: Ani Publishing.
- Shengnan, L. & Hallinger, P. (2020). Unpacking the effects of culture on school leadership and teacher learning in China. *Educational Management Administration & Leadership*, 174114321989604. doi:10.1177/1741143219896042
- Sokmen, A. (2014). What does the social development index mean for Turkey? [Social development index what does mean for Turkey?]. *The Economic Policy Research Foundation of Turkey*. Retrieved from https://www.tepav.org.tr/upload/files/1403700250-6.Sosyal_Gelisme_Endeksi_Turkiye_Icin_Ne_Ifade_Ediyor.pdf
- SPI (Social Progress Index). (2019) Social progress index Executive Summary. Retrieved from <https://www.socialprogress.org/assets/downloads/resources/2019/2019-Social-Progress-Index-executive-summary-v2.0.pdf>
- Tabachnick, B. G., & Fidell, L. S. (2013). *Using multivariate statistics* (6th ed.), Boston: Allyn and Bacon.
- Ucar, L. (2016). *The power types that are used by school administrators and the organizational depression: A correlational screening model*, (Unpublished Master's Thesis). Siirt University, Social Sciences Institute: Siirt.
- Uludag-Kodal, D. (2019). *The relationship between power types that pre-school administrators use and organizational commitment level of teachers* (Unpublished Master's Thesis). Pamukkale University; Educational Sciences Institute: Denizli.
- Urwick, L. F. (1944). *The elements of administration*. New York: Harper & Brothers.
- Yaman, E. & Irmak, Y. (2010). Power distance between managers and teachers. *Mustafa Kemal University Journal of Social Sciences Institute*, 7(13), 164–172. Retrieved from <http://dergipark.org.tr/tr/pub/mkusbed/issue/19571/208610>
- Yilmaz, K. & Altinkurt, Y. (2012). Relationship between school administrators' power sources and teachers' job satisfaction. *Kastamonu Education Journal*, 20(2), 385-402. Retrieved from <https://dergipark.org.tr/tr/pub/kefdergi/issue/48697/619533>
- Yorulmaz, Y. I., Colak, I., Altinkurt, Y. & Yilmaz, K. (2018). The validity and reliability study of organizational power distance scale. *Trakya Journal of Education*, 8(4), 671-686. doi: 10.24315/trkefd.411916