Research Article

Relationship between Professional Learning Community, Bureaucratic Structure and Organisational Trust in Primary Education Schools[*]

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Abstract

This research uses relational survey method to determine the relationship between professional learning community, bureaucratic structure and organisational trust according to the perceptions of teachers who work in primary education schools. Data were collected from 805 teachers who work in primary education schools in the districts (Altındağ, Çankaya, Gölbaşı, Keçiören, Mamak, Yenimahalle ve Pursaklar) of Ankara. The Professional Learning Community scale, the Enabling School Structure scale and the Omnibus T-scale were used to collect data. Descriptive statistics, Pearson moment-product correlation and multiple and hierarchical linear regression analysis were applied to analyse the data. Research results indicated that relationships exist between professional learning community, bureaucratic structure and organisational trust. Moreover, organisational trust is a partial mediating variable in the relationship between professional learning community and bureaucratic structure.

Keywords

Professional learning community • Bureaucratic structure • Organisational trust

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Like most public institutions, schools have to make adjustments because of changes in the social, economic and political climates in which they operate. Making such adjustments is not a new phenomenon for schools. Throughout history, schools have altered their internal operations in various ways in response to external influences (Tylus, 2009, p. 1). As a result of external influences, schools search for ways to respond to the demands of society and policymakers, and they have had to develop a variety of strategies, including a change of school structures. Although many strategies have been suggested for this subject, some researchers suggest professional learning communities as a structural element to maximise school effectiveness (DuFour, 2008; Fullan, 2006; Schlechty, 2005; Schmoker, 2004). Professional learning communities attract the attention of schools that perceive change models as a strategic element (Dockery, 2011) and are seen as a strong area for staff development, school improvement and change (Hord, 1997).

Research shows that professional learning communities positively affect student achievement, teacher morale, teacher effectiveness and job satisfaction, school culture and climate (Ackerman, 2011; Becenti, 2009; Bryk & Schneider, 2002; Grippen, 2007; Louis, Dretzke, & Wahlstrom, 2010; Moore, 2010; Supovitz, Sirinides, & May, 2010). Furthermore, professional learning communities decrease teachers' loneliness (isolation) and increases working capacity to ensure a productive school environment and improve the quality of teaching (Hord, 1996). In a professional learning communitiy, teachers experience shared leadership (Huffman & Hipp, 2003), become aware of a distinct purpose (DuFour, Eaker, DuFour, & Karhanek, 2004), strengthen their commitment to the goals of the school and its mission (Lee, Smith, & Croninger, 1995; McLaughlin, 1993) and strengthen their commitment to student learning (McLaughlin, 1993).

The attempts of schools to create professional learning communities usually fail. Many such attempts are put in action without considering the formal and informal aspects of the school organisation. When the desired results are not obtained, such attempts are shelved after a while. The effect of school structure on a professional learning community's formation, development and maintenance is often ignored. Moreover, determining an effective organisational structure to create a professional learning community is not considered in depth. The same situation is true for research that attempts to identify effective school characteristics. Although these studies describe how effective schools look, they do not provide information on the procedures that affect school structure, effectiveness and development (McGuigan, 2005). Such procedures need to be known to provide an understanding of how organisations structure themselves (Mintzberg, 2014).

Many schools have attempted to create professional learning communities under different names. However, the type of organisational structure or structures that can effectively create professional learning communities has not been considered in

depth or the structure has been neglected because of the belief in the immutability of the existing structure. The same situation is true for studies that have attempted to identify the characteristics of effective schools. Such studies do not provide descriptive information about the procedures that lead to development effectiveness and the functioning of the school structures even though they identify how effective schools look (McGugian, 2005). However, we need to know how schools function to understand how they configure themselves (Mintzberg, 2014). Recently, some studies have revealed that types of bureaucracy have an effect on professional learning communities starting from the assumption that school structures are bureaucratic. Structures with enabling bureaucracy are important factors in the creation of professional learning communities and affect instructional practices in the classroom (Gray, 2011; Search-Hudson, 2005; Tylus, 2009). In schools with enabling bureaucracy, teachers have autonomy, and their professional behaviours are not limited by strict rules (Hoy, 2003). Enabling bureaucracy meets the teachers' need to practice instructional changes (Englert & Tarrant, 1995). By contrast, schools with coercive bureaucracy emphasise rules and regulations, as well as shape educational activities through control, thereby limiting teachers from demonstrating their professional expertise (Hoy & Sweetland, 2001) and restricting professional knowledge sharing.

The school organisation can reflect either the negative or the positive characteristics of a bureaucracy. In the literature, some studies reveal that the positive or negative features of a bureaucracy influence organisational variables that affect educational organisations; such variables include academic optimisim, organisational socialisation and organisational trust levels of teachers (Anderson, 2012; Cerit, 2012; Erdoğan, 2012; Gray, 2011; Hoy & Sweetland, 2000; McGuigan, 2005; Messick, 2012; Özdemir & Erdoğan, 2014). Teachers and school administrators are both affected by such negative or positive characteristics. Schools can be oppressive and divisive; administrators may support a school culture that inhibits teachers from interacting, thereby alienating individuals (Hoy & Sweetland, 2001). Conversely, school bureaucracies can be supportive and foster an environment of trust and collaboration among teachers (Messick, 2012). Enabling bureaucracy fosters collegiality, collaboration, innovation and trust. More open and authentic interactions among teachers can be observed in such an environment (Hoy & Sweetland, 2001). In structures where the bureaucracy is coercive, organisational trust and cooperation decrease, and a structural change to strengthen the authority of the director is experienced. Coercive bureaucracy decreases organisational trust and cooperation, and support culture is replaced by a culture of conflict, alienation and fear (Hoy, 2003) where teachers are confronted with feelings of weakness (Hoy & Sweetland, 2000).

Organisational trust, which forms the informal aspect of the school organisation, is an important element for school effectiveness (Tschannen-Moran, 2004). Organisa-

tional trust has a positive effect on problem solving and decision making that requires the contribution of all members of the group and functionalising collective actions, thereby facilitating healthy information sharing and promoting higher job satisfaction and commitment (Arı, 2003; Büyükdere & Solmuş, 2006; Cosner, 2009). Organisational trust and its effect on the organisation is important in educational organisations. The extent of the culture of trust in a school is the collective trust between all parties, that is, the administration, the teachers, the parents and the students (Angelle, Nixon, Norton, & Niles, 2011).

A professional learning community emerges in a school with a culture of trust, risk taking and support (Thompson & McKelvy, 2007). Continuous change in professional learning community is a matter of question. This change often occurs in terms of the implementation of new methods and procedures for student learning. Trust is a fundamental prerequisite for this situation. In an environment where insecurity is dominant, risk taking for change will be avoided, and efforts will not be extended to initiate and sustain support for change. Distrust makes people resistant to change and causes people to see change as a threat (Slater, 2000, p. 144). The nature of professional learning communities requires gathering around a shared vision for student learning, sharing leadership and practice, cooperation for collective learning and application; this situation is difficult without trust. A principal who does not trust teachers cannot be expected to share power and authority. If the teachers do not trust their colleagues to improve teaching and learning, then they cannot be expected to cooperate. However, the core of learning is collaborative behaviour. Cooperation between colleagues, reflective dialogue, peer coaching and resource sharing require trust-based relationships (Callan, 1996; Kochanek, 2005).

A literature review indicates that studies that show the relationships among professional learning community, bureaucratic structure and organisational trust are limited. In addition, a study that examines a combination of these variables and shows the relationship between these three variables is not found in Turkey. When considering the role of the professional learning community in bringing about change in schools, its positive effect on school culture and climate and as a driving force in increasing teacher effectiveness and increasing function in student achievement, this research is likely to provide important contributions to the field of education. This research aims to determine the relationships between professional learning community, bureaucratic structure and organisational trust, which are thought to be important variables in creating a professional learning community. Given the above background, the problem statement of this research can be expressed as follows: What is the status of the relationship between professional learning community, bureaucratic structure and organisational trust? The following questions will be answered to address the above mentioned purpose:

1. What are teachers' perceptions of professional learning community, bureaucratic structure and organisational trust?

2. What type of relationship exists among professional learning community, bureaucratic structure and organisational trust?

3. Does organisational trust have a mediating effect on the relationship between bureaucratic structure and professional learning community?

Method

Research Design

This study, which is designed with a relational search model, is a quantitative study that aims to determine the relationship between teachers' perceptions of professional learning community, bureaucratic structure and organisational trust. Relational search models are research approaches that describe a current or past situation as it is or was (Karasar, 1998, p. 81). The research model consists of three variables, namely, an independent variable (bureaucratic structure) and two dependent variables (organisational trust and professional learning community). However, the organisational trust variable can be expressed as a mediating variable in the research model.

Participants

The population of the research comprised 20.203 teachers who work in the state primary education schools within seven districts (Altındağ, Çankaya, Gölbaşı Keçiören, Mamak, Pursaklar and Yenimahalle) of Ankara province during the 2013–2014 academic year. The sample of this research included 805 primary education school teachers, who were selected according to the stratified sampling method. Stratified sampling, which is a method that is usually planned for practical reasons, secures a subset of the universe represented in the sample (Balcı, 2009, p. 93). In this method, a homogeneous subset of the universe should be determined according to a factor (variable) that may be effective for the research problem (Büyüköztürk, Çakmak, Akgün, Karadeniz, & Demirel, 2010, p. 85). In this study, as teachers' perceptions of professional learning communities, bureaucratic structures and organisational trust are thought to be associated with education level, research population was divided into two sub-layers, namely, primary and secondary school, according to educational level.

The layer unit in this study is education. Thus, the total number of primary and secondary schools in the districts and the overall percentage of the total number of schools were calculated. In the next step, a sample calculation formula provided by Büyüköztürk et al. (2010) was used to determine how many schools would be included in a sample from the universe. A total of 176 primary schools were included in the re-

search sample as a result of the calculation. To ensure representation of the number of schools in the same proportion in the sample, the overall percentage of the total number of schools in district was used. Accordingly, among a sample that consists of 176 primary schools, the schools were selected randomly as follows: Altındağ, 27; Çankaya, 33; Gölbaşı, 14; Keçiören, 31; Mamak, 31; Pursaklar, 6; and Yenimahalle, 34. With the use of the same approach, 155 secondary schools were included in the research sample. Among a sample that consists of 155 secondary schools, the schools were selected randomly as follows: Altındağ, 23; Çankaya, 31; Gölbaşı, 12; Keçiören, 29; Mamak, 26; Pursaklar, 7; and Yenimahalle, 27. A total of 805 teachers from 176 primary and 155 secondary schools constituted the sample of the study. The population and sample distribution according to the educational level of the schools are presented in Table 1.

Table 1

Population and Sample Distribution According to Educational Level

Districts	Population				Sample			
	Primary school		Secondary school		Primary school		Secondary school	
	N	*%*	*N*	*%*	*n*	*%*	*n*	*%*
Altındağ	51	15.7	39	15.1	27	15.7	23	15.1
Çankaya	62	19.1	51	19.8	33	19.1	31	19.8
Gölbaşı	25	7.7	21	8.1	14	7.7	12	8.1
Keçiören	57	17.5	48	18.6	31	17.5	29	18.6
Mamak	57	17.5	44	17.1	31	17.5	26	17.1
Pursaklar	11	3.4	12	4.7	6	3.4	7	4.7
Yenimahalle	62	19.1	43	16.6	34	19.1	27	16.6
Total	325	100	258	100	176	100	155	100

74.5% ($n = 590$), 25.5% ($n = 202$), %39.3 ($n = 310$), %60.7 ($n = 479$) of the teachers who participated in the study are women, men, classroom teachers and branch teachers, respectively. An analysis of the status of the participants in terms of professional seniority shows that 50.9% ($n = 410$), 42.1% ($n = 339$) and 7 % ($n = 56$) of the teachers have a length of service of 1–15 years, 16–30 years and 31 years and above, respectively. Moreover, 42.2% ($n = 339$) and 57.8% ($n = 465$) of the participating teachers work in primary and secondary schools, respectively.

The distribution of percentage and the number of teachers involved in population and sampling according to district are presented in Table 2.

Table 2 shows that among a sample of 805 primary education school teachers, the teachers were selected randomly as follows: Altındağ, 104 (12.9%), Çankaya, 167 (20.8%), Gölbaşı, 34 (4.2%), Keçiören, 188 (23.4%), Mamak, 126 (15.7%), Pursaklar, 28 (3.5%) and Yenimahalle, 158 (19.5%).

Table 2

Distribution Of Percentage and the Number of Teachers Involved in Population and Sampling According to District

Districts	Population		Sample	
	N	*%*	*n*	*%*
Altındağ	2.611	12.9	104	12.9
Çankaya	4.201	20.8	167	20.8
Gölbaşı	848	4.2	34	4.2
Keçiören	4.721	23.4	188	23.4
Mamak	3.168	15.7	126	15.7
Pursaklar	702	3.5	28	3.5
Yenimahalle	3.952	19.5	158	19.5
Toplam	20.203	100	805	100

Data Collection

The Professional Learning Community scale, the Enabling School Structure scale and Omnibus T-scale were utilized to collect data.

The Professional Learning Community Scale. The Professional Learning Community scale was developed by Olivier et al. (2003). It was adapted for this study to suit the Turkish context, and validity and reliability works were performed by the researcher to determine the status of professional learning communities in schools. A four-point Likert-type scale was developed, with the responses given as strongly disagree (1), disagree (2), agree (3) and strongly agree (4). The form in the five subscales consists of 45 items. Ten items constitute the shared and supportive leadership subscale, eight items are given in the shared values and vision subscale, eight items are presented in the collective learning and application subscale, six items are listed in the shared personnel practices subscale and 13 items are provided in the supportive conditions subscale.

The adapted scale form was applied to a group of 200 primary education teachers within the scope of the validity and reliability works. Its five-factor structure was tested by first-order confirmatory factor analysis. Fit indexes in the confirmatory factor analysis results were as follows: [$\chi^2 = 1542.37$; df = 935, $p < .05$], (χ^2 /df) = 1.65, RMSEA = .057, SRMR = .072, CFI = .98, NFI = .96, NNFI = .97 and IFI = .98. After confirmation of the structure of the scale, Cronbach's alpha values were examined for reliability. The 45-item scale's Cronbach's alpha value was .97, and the Cronbach's alpha values for the subscales ranged from .89 to .93.

The enabling School Structure Scale. The Enabling School Structure scale was developed by Hoy and Sweetland (2000). It was adapted to the Turkish context, and relevant validity and reliability works were performed by Buluç (2009). The scale is used to determine the teachers' perceptions of bureaucratic structures. A five-point Likert-type scale is developed, with the responses given as never (1), seldom (2), sometimes

(3), routinely (4) and always (5). The original form in one subscale consists of 12 items. Six items of the scale consist of statements that measure enabling bureaucracy, and the other six items consist of statements that measure coercive bureaucracy (Özer, 2010).

To determine which factor structure would be utilised, exploratory factor analysis was performed according to principal components analysis based on data obtained from the original application because the scale used by Buluç (2009), Erdoğan (2012) and Özer (2010) exhibited different factor structures. Factor structure was then tested by confirmatory factor analysis, which determined the following: a Kaiser-Mayer-Olkin (KMO) value of .896, Bartlett's sphericity test of 1008.847 and $p = .00$. The cumulative variance of rate scale based on two factors was 55.284%. Fit indexes in confirmatory factor analysis results were as follows: [$\chi^2 = 84.33$, df $= 53$, $p < .05$], (χ^2 /df) $= 1.59$, RMSEA $= .055$, SRMR $= .055$, CFI $= .99$, NFI $= .96$, NNFI $= .98$ and IFI $= .98$. The analysis results were supported by Özer (2010) and Erdogan (2012). Thus, the two-dimensional scale adapted by Buluç (2009) was used. After confirmation of the structure of the scale, the Cronbach's alpha values were examined for reliability. The 12-item scale's Cronbach's alpha value was .88, and the Cronbach's alpha values for the first and second subscales were .83.

Omnibus T-scale. The Omnibus T-scale was developed by Hoy and Tschannen-Moran (2003), and its adaptation to Turkish, validity and reliability works were performed by Yılmaz (2006). This scale is used to determine teachers' perceptions of organisational trust. A five-point Likert-type scale is developed, with the responses given as never (1), seldom (2), sometimes (3), routinely (4) and always (5). The original form of the scalee has three subscales and consists of 26 items. The adapted form of the scale consists of 22 items, with seven items in the trust in principal subscale, eight items in the trust in colleagues subscale and seven items in the trust in stakeholders subscale.

To determine which factor structure would be utilised, exploratory factor analysis was performed according to principal components analysis based on data obtained from the original application because the scale used by Cerit (2009), Gökduman (2007) and Yılmaz (2006) exhibited different factor structures. The factor structure was then tested by confirmatory factor analysis, which determined the following: KMO value $= .895$, Bartlett's sphericity test $= 3216.387$ and $p = 0.00$. The cumulative variance of rate scale based on two factors was 65.387%. Fit indexes in confirmatory factor analysis results were as follows: [$\chi^2 = 445.52$; df $= 206$, $p < 0.05$], (χ^2 /df) $= 2.16$, RMSEA $= .076$, CFI $= .97$, NFI $= .94$ and NNFI $= .96$, IFI $= .97$, SRMR $= .063$, The analysis results were supported by the findings of Gökduman (2007) and Yılmaz (2006). Thus, the three-dimensional scale adapted by Yılmaz (2006) was used. After confirmation of the structure of the scale, the Cronbach's alpha values were examined for reliability. The 22-item scale's Cronbach's alpha value was .92. The Cronbach's alpha values for the first, second and third subscales were .91, .91 and .89, respectively.

Data Analysis

SPSS13.0 and LISREL 8.80 statistical software package were used to analyse the data. Frequency, percentage distribution, mean and standard deviation values were calculated. Descriptive statistics, Pearson moment-product correlation and multiple and hierarchical linear regression analysis were applied. To determine the reliability of the scale, Cronbach's alpha coefficient value was used.

Findings

Descriptive statistics on teachers' perceptions of professional learning community, bureaucratic structure and organisational trust are presented in Table 3.

Table 3 shows that the shared and supportive leadership and the shared values and vision subscales of the professional learning community ($\bar{x}$ = 2.96) have the highest value, and supportive conditions of professional learning community ($\bar{x}$ = 2.79) has the lowest value. In other words, teachers perceive that more shared and supportive leadership, shared values and vision exist than supportive conditions in their schools. Although the standard deviation values of the subscales are quite close to each other, the shared values and vision subscale (S = .48) is the most homogenous, and the supportive conditions subscale is the most heterogeneous (S = .52). An assessment of the arithmetic means obtained from the subscales of professional learning community on the basis of their score intervals shows that teachers agree with the expressions in the subscales of the scale. In other words, they perceive their schools as professional learning communities.

Table 3
Descriptive Statistics on Teachers' Perceptions of Professional Learning Community, Bureaucratic Structure and Organisational Trust (n = 805)

	Subscales	$\bar{x}$	*Sth D.*	Level
Professional Learning Community	Shared and supportive leadership	2.96	.52	agree
	Shared values and vision	2.96	.48	agree
	Collective learning and applications	2.89	.49	agree
	Shared personnel practices	2.94	.51	agree
	Supportive conditions	2.79	.47	agree
Bureaucratic Structure	Enabling bureaucracy	3.64	.66	usually
	Coercive bureaucracy	2.11	.70	rarely
Organisational Trust	Trust in principal	3.81	.64	usually
	Trust in colleagues	3.60	.70	usually
	Trust in stakeholders	3.32	.68	sometimes

In addition, Table 3 shows that the enabling bureaucracy subscale of bureaucratic structure ($\bar{x}$ = 3.64) has a higher value than that of the coercive bureaucracy subscale ($\bar{x}$ = 2.11). In other words, teachers perceive that the bureaucratic structures of their schools are enabling. Standard deviations indicate that the enabling bureaucracy sub-

scale ($S = .66$) is more homogenous than the coercive bureaucracy subscale ($S = .70$). An assessment of the arithmetic means obtained from the enabling bureaucracy sub-scale of bureaucratic structure on the basis of their score intervals shows that teachers agree 'usually' with the expressions in the subscales of the scale. In other words, they perceive the bureaucratic structures of their schools as enabling.

Table 3 reflects that the trust in principal subscale of organisational trust ($\bar{x} = 3.81$) has the highest value, and the trust in stakeholders subscale of organisational trust ($\bar{x} = 3.32$) has the lowest value. In other words, teachers trust principals most in schools. Although the standard deviation values of the subscales are quite close to each other, the trust in principal subscale ($S = .64$) is the most homogenous, and the trust in col-leagues subscale is the most heterogeneous ($S = .70$). An assessment of the arithmetic means obtained from the subscale of organisational trust on the basis of their score intervals shows that teachers agree 'usually' with the expressions in the trust in prin-cipals and colleagues subscales. Teachers agree 'sometimes' with the expressions in the trust in stakeholders subscale. In other words, teachers mostly trust principals and colleagues, and they trust stakeholders sometimes.

To determine the relationships between professional learning community, bureau-cratic structure and organisational trust, Pearson moment-product correlation coeffi-cients were utilised. Analysis results are presented in Table 4.

Table 4
Correlation Analysis Results related to Teachers' Perceptions of Professional Learning Community, Bureau-cratic Structure and Organisational Trust

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10
1. Shared and support. lead.	1									
2. Shared values and vision	.70*	1								
3. Collective learning and ap.	.54*	.75*	1							
4. Shared personnel pract.	.50*	.68*	.79*	1						
5. Supportive conditions	.68*	.67*	.69*	.71*	1					
6. Enabling bureaucracy	.52*	.40*	.35*	.30*	.49*	1				
7. Coercive bureaucracy	-.44*	-.30*	-.23*	-.18*	-.33*	-.56*	1			
8. Trust in principal	.62*	.39*	.30*	.29*	.48*	65*	-.53*	1		
9. Trust in colleagues	.39*	.45*	.51*	.51*	.54*	46*	-.26*	.45*	1	
10. Trust in stakeholders	.21*	.27*	.28*	.27*	.36*	33*	-.13*	.23*	.50*	1

* $p < .05$.

Table 4 shows that among all correlations between the enabling bureaucracy subscale of bureaucratic school structure, the subscales of professional learning community and of organisational trust are significantly and positively correlated. However, all correlations between the coercive bureaucracy subscale of bureaucratic structure, the subscales of pro-fessional learning community and the subscales of organisational trust are significantly and negatively correlated. In other words, when teachers' perceptions of enabling bureau-

cracy increase, their perceptions of professional learning community and organisational trust increase. When their perceptions of coercive bureaucracy increase, their perceptions of professional learning community and organisational trust decrease.

The supportive conditions subscale of professional learning community consists of items that express organisational trust in terms of relationships. Therefore, a positive and significant correlation between organisational trust and professional learning community is expected. However, whether bureaucratic structure directly affects professional learning community or indirectly affects through organisational trust is uncertain. Thus, hierarchical regression analysis was conducted to determine whether bureaucratic structure has a mediating effect on the relationship between professional learning community and organisational trust. Results of hierarchical regression analysis are presented in Table 5.

Table 5 shows that in the first regression analysis, bureaucratic structure (independent variable) affects organisational trust (mediator variable) in a positive and meaningful way ($\beta = .555$; $p < .05$). Bureaucratic structure explains 31% of the variation in organisational trust. The second regression analysis shows that organisational trust (mediator variable) affects professional learning community (dependent variable) in a positive and meaningful way ($\beta = .602$; $p < .05$). Organisational trust explains 36% of the variation in professional learning community alone. The third regression analysis shows that bureaucratic

Table 5

Results of Regression Analysis to Determine the Mediating Effect of Organisational Trust between Bureaucratic Structure and Professional Learning Community

Variables	R^2	F	B	β	t	p
1. Step: Model 1	.308	357.288				
Constant			1.797		18.816	.00
Bureaucratic structure			.475	.555	18.902	.00*
Dependent variable: Organisational trust						
	R^2	F	B	β	t	P
2. Step: Model 2	.363	457.554				
Constant			1.168		14.267	.00
Organisational trust			.484	.602	21.391	.00*
Dependent variable: Professional learning community						
	R^2	F	B	β	t	P
3. Step: Model 3	.237	249.476				
Constant			1.644		2.404	.00
Bureaucratic structure			.335	.487	15.795	.00*
Dependent variable: Professional learning community						
	R^2	F	B	β	t	p
4. Step: Model 4	.397	263.568				
Constant			.951		11.047	.00
Bureaucratic structure			.152	.220	6.685	.00
Organisational trust			.386	.480	14.563	.00*
ΔR^2 (R^2 variation) .160						
Dependent variable: Professional learning community						

structure (independent variable) affects professional learning community (dependent variable) in a positive and meaningful way ($\beta = .487$; $p < .05$). The last regression analysis shows a 16% variation of R^2 when organisational trust is added to the model. Although the variation is not significant, the result indicates that organisational trust has a significant mediating effect ($\beta = .480$; $p < .05$) on the relation between bureaucratic structure and professional learning community. The independent variable (bureaucratic structure) did not disappear completely in the final analysis, thereby indicating the existence of other mediating variables. This finding shows that organisational trust is a partial mediating variable in the relationship between professional learning community and bureaucratic structure. In other words, bureaucratic structure, as it directly affects professional learning community, also has an indirect effect through organisational trust.

Discussion and Conclusion

This study found that teachers perceive their schools as a professional learning community, that the bureaucratic structure of their schools is rather enabling and that they trust the principal more than they do their colleagues and stakeholders. Significant and meaningful relationships between professional learning community, bureaucratic structure and organisational trust were found. Moreover, organisational trust is a significant partial mediating variable in the relationship between bureaucratic structure and professional learning community.

The first sub-problem of the study was presented as follows: "What are teachers' perceptions of professional learning community, bureaucratic structure and organisational trust?" The findings related to this sub-problem indicate that teachers perceive their schools as professional learning communities. An analysis of related studies show that the findings of Gray (2011), Robertson (2011), Scoggins (2008) and Shorter (2012) support the findings of this study. Although they used different scales, these studies show that teachers had a high sense of professional learning community in general. This result can be considered a positive factor in terms of building an effective school where teachers use their full capacity, thereby improving the quality of the educational process and student learning. Although teachers have a high sense of professional learning community, studies conducted on similar samples indicate that teachers have high perceptions of resistance to change (Çalık, Koşar, Kılınç, & Er, 2013; Güçlü, Özer, Kurt, & Kandemir, 2010; Gürses & Helvacı, 2011). However, teachers in professional learning communities are open to change. Change is essential to professional development. In this context, the findings of the research raise the question of whether teachers' views on professional learning communities are objective. Qualitative studies can provide in-depth knowledge and determine teachers' views on professional learning communities.

An examination of teachers' perceptions of bureaucratic structure shows that they perceive their school structures as enabling. Buluç (2009), Erdoğan (2012) and Özer (2010) obtained similar results, thereby supporting the findings of this study. However, Cerit (2012) and Özdemir and Kılınç (2014) found that primary school teachers did not perceive their school structure as effective; in other words, they thought that their school structures had features of coercive bureaucracy. This difference may be due to the principal's attitude towards school management. Apparently, the way a principal communicates with teachers and the way he uses his power and authority can affect teachers' perceptions of school structure (Rhoads, 2009).

An examination of teachers' perceptions of organisational trust shows that they trust principals and colleagues mostly, but they trust stakeholders sometimes. Bökeoğlu and Yılmaz (2008) obtained similar results, thereby supporting the findings of this study. However, these results differ from the findings of Özer, Demirtaş, Üstüner, and Cömert (2006) and Cerit (2012). Özer et al. (2006) found that high school teachers trusted their principal, colleagues and stakeholders mostly. Cerit (2012) found that primary school teachers trusted their principal and parents rarely, but they trusted their colleagues and students sometimes. This difference may be due to the fact that trust is a complex process based on many factors. In interpersonal trust, the characteristics of the truster and the trusted party, cognitive and affective dimensions and focus group in organisational trust may be effective in the formation of trust (Ünal, 2011). However, the interesting point is that teachers have low perceptions of trust in stakeholders. To determine the underlying cause of this situation, information such as the number of students per teacher, the level of cooperation with parents and form and frequency of communication established with stakeholders are needed. These factors can be the basis for the establishment of trust by offering teachers the opportunity to familiarise themselves with the stakeholders.

The second sub-problem of the study was stated as follows: "What type of relationship exists between professional learning community, bureaucratic structure and organisational trust?" The findings related to this sub-problem show that all correlations between the enabling bureaucracy subscale of bureaucratic structure, the subscales of professional learning community and the subscales of organisational trust are significantly and positively correlated. However, all correlations between the coercive bureaucracy subscale of bureaucratic structure, the subscales of professional learning community and the subscales of organisational trust are significantly and negatively correlated. In other words, when teachers' perceptions of enabling bureaucracy increase, their perceptions of professional learning community and organisational trust levels increase. When their perceptions of coercive bureaucracy increase, their perceptions of professional learning community and organisational trust decrease. Such findings show similarity with the findings of Cranston (2011), Betts (2011), Gray (2011),

Guerrini (2003) and Hogg (2013). Although these studies used different scales, they found that teachers in general had a high sense of professional learning communities.

In professional learning communities, cooperation is a prerequisite for learning, practice and sharing results of applications. Without trust, ensuring collaboration among teachers is difficult; any collaboration that takes place in such an environment will not be functional (Ryan & Oestriech, 1998). Strong relational trust increases the likelihood that reform initiatives will diffuse broadly across the school because trust reduces the sense of risk associated with change (Bryk & Schneider, 2002). A high degree of trust also promotes loyalty and commitment. Mutual trust is important for ensuring improved relationships between members in the long term (Yılmaz, Kabadayı, & Sezen, 2002). A work environment characterised by trust facilitates collaborative learning and encourages people to produce and search for new information. Moreover, high trust perceptions between colleagues positively affects organisational support, organisational citizenship and awareness of school and student achievements (Cosner, 2009, p. 53). A professional learning community can be said to be an indispensable element in this context.

The third sub-problem of the study was stated as follows: 'Does organisational trust perceived by teachers have a mediating effect on the relationship between bureaucratic structure and professional learning community?' The findings related to this sub-problem show that organisational trust is a partial mediating variable in the relationship between professional learning community and bureaucratic structure. In other words, bureaucratic structure, as it directly affects professional learning community, also has an indirect effect through organisational trust. This result reveals that a relationship exists between bureaucratic structure, which is the formal aspect of professional learning communities, and organisational trust, which is the informal aspect of an organisation. The possible effect of the bureaucratic structures' function on employees is effective creation and sustaining of professional learning communities. In this context, teachers' trust in principals and colleagues can be said to increase in schools with enabling bureaucracy. Thus, teachers with a growing sense of trust can cooperate with others in implementing applications that positively affect student learning.

In sum, a network of relations exists between bureaucratic structure, organisational trust and professional learning community network. The existence of this network suggests that bureaucratic structure and organisational trust should be considered because the formal and informal aspects of an organisation are important for the sustainability and development of professional learning communities. An organisation consists of many formal and informal structures aside from bureaucratic structure and organisational trust. The effects of these structures on the professional learning community are not fully known given the relatively new concept of professional learning communities. Moreover, studies that show the effect of individual characteristics of members who constitute

professional learning communities are limited. Studies that demonstrate the relationship between professional learning community, organisational and individual variables are expected to provide important contributions to the field. Furthermore, qualitative studies can be conducted to gain additional detailed information about professional learning communities, bureaucratic structures and organisational trust of schools. Different results may be obtained because of different values, cultures and faiths in the school environment and varying school structures. This study determined the opinions of teachers. A study that focuses on principals' views on the creation of professional learning communities in their school can provide different perspectives on the issue.

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