Journal of Educational Leadership and Policy Studies
ISSN#: 2473-2826
Southern Connecticut State University

Teachers' Perceived Social Capital in Schools and Their Attitudes toward Professional Collaboration

[1]Fatih Mutlu Özbilen
[2]Osman Çekiç

Abstract
This study seeks to examine the correlation between teachers' perceived social capital in their schools and their attitudes toward professional collaboration. Adopting a quantitative design, this study follows a relational survey model. The research sample is comprised of 456 teachers currently employed in Istanbul's district of Esenyurt during the second semester of the 2020–2021 academic year. Participants were selected through simple random sampling. Data from the study were obtained using the Scale of Social Capital in Schools developed by Polatcan (2018) and the Scale of Attitude toward Professional Collaboration among Teachers developed by Yılmaz and Çelik (2020). Data were analyzed using SPSS v.22. The analyses reveal that the participant teachers generally perceive moderate amounts of social capital in their schools and they regard professional collaboration in a very positive light. We furthermore found a moderate, positive, and significant correlation (r=.404) between teachers' perceived social capital in schools and their attitudes toward professional collaboration. Finally, it has been found that the sub-dimensions comprising teachers' perceived social capital in their schools collectively explained 18% of the total variance in their attitudes toward professional collaboration and that two variables—commitment and social interaction bonds—were statistically significant predictors of professional collaboration.

Keywords: *Social Capital, Professional Collaboration, Teacher*

[1]**Fatih Mutlu Özbilen**, PhD, Assistant Professor, Department of Child Care and Youth Services, Child Development Program
Canakkale Onsekiz Mart University, Canakkale Vocational School of Social Sciences, Canakkale/Turkey
Email: fatihmutluozbilen@gmail.com
[2]**Osman Çekiç**, PhD, Associate Professor, Department of Educational Sciences, Lifelong Learning and Adult Education Program
Canakkale Onsekiz Mart University, School of Education, Canakkale/Turkey
Email: osmancekic181@gmail.com

Recommended Citation: *Özbilen, F. M., & Çekiç, O. (2022). Teachers' perceived social capital in schools and their attitudes toward professional collaboration, Journal of Educational Leadership and Policy Studies, 6(1)*

Journal of Educational Leadership and Policy Studies
ISSN#: 2473-2826
Southern Connecticut State University

Introduction

Schools, providing a myriad of valuable educational opportunities for students, are also venues in which teachers may engage in meaningful communication and have robust interactions with one another. Teachers should forge positive relations not only among themselves but also with students, school administrators, parents, and other stakeholders to achieve shared educational goals. Given that these relations are integral for attaining said goals, the organizational structures of societal institutions must incorporate certain characteristics and compositional elements that allow teachers and students alike to thrive and work effectively toward shared goals. Social capital, which either emerges in conjunction with interpersonal relationships or forms the very source of these relationships, is but one of these elements.

Social capital, a term with deep roots in the field of sociology, emerged from a discipline that prioritized a collectivist over an individualist structure (Gannon & Roberts, 2020). The term social capital was initially used by Hanifan (1916) to explain the importance of civil participation in enhancing school performance. This concept was later touched upon by Homans (1961) while investigating urban communities and by Jacobs (1961) while investigating social interaction theory. Later, Loury mentioned social capital while discussing income distributions and race-based income disparity in the 1970s (Portes, 1998). Social capital constitutes a foundational part of societies' cultural makeup and is accepted as a source of wealth (Fukuyama, 1995; Putnam, 1993). Likewise, "social capital [is] a broad term encompassing the norms and networks facilitating collective action for mutual benefit" (Woolcock, 1998, p. 155). The OECD (2000) defines social capital as "networks together with shared norms, values, and understandings that facilitate cooperation within or among groups" (p. 41). In another study, the OECD addressed four distinct components of social capital: (i) personal relations, (ii) social network support, (iii) civic engagement, and (iv) trust and cooperative norms (Scrivens & Smith, 2013). As may be gleaned from the disciplinary approaches seeking to conceptualize it, social capital nourishes interpersonal relations and collaboration among individuals.

Bourdieu (1986) highlights that social relations—given that they are intimately tied to social capital—assist individuals in reaching other members of their group. He maintained that social capital was a characteristic belonging to individuals and not a product of his/her social position or status. According to Coleman (1988), individuals engage and are involved in social interactions, relations, and networks to the extent they benefit from them and, consequently, use social capital to achieve specific objectives. Individuals who know this, utilize social capital to realize their actions in the outside world and to obtain certain desired outcomes, as well as to improve the social structures in which they are integrated. In a similar vein, teachers, by forging close relationships with each other in schools and then using their collective social capital not only to augment their own performance but also to aid students in actualizing their own academic aspirations, serve as important metrics for school success. Putnam (2000) addresses social capital through interpersonal connections, which include, among other things, social networks as well as trust and cooperative norms. Similarly, social capital is thought to waver in

societies lacking reciprocal social relationships, and certain approaches ground social capital in reciprocity and trust. In-school friendships between teachers based on trust, sharing, and cooperation are anticipated to bolster social capital. For all parties interested in enhancing the quality of instruction, the above reveals the importance of ascertaining social capital levels within teachers' own schools and how they form their perceptions of trust, commitment, social interaction networks, and other similar components making up social capital.

Consistent, professional collaboration among teachers is an indispensable component of education quality. Teachers engaged in consistent communication and interactions with one another will naturally share their collective knowledge and lived experiences with each other. The experiences teachers gain through professional collaboration will not only offer teachers the opportunity to manifest their own inner potential but also provide schools with germane recommendations. Just as this type of collaboration will drive teachers to ameliorate their communication and interaction skills even further, students will benefit from a more effective instruction process since teachers will be able to draw from a more diverse pool of experiences.

The teaching profession has undergone constant evolutions throughout the world. As literacy rates rise, students have higher expectations with respect to academic performance. Since it is necessary to respond to these expectations, teachers must cooperate with each other more frequently and in increasingly meaningful ways (Hargreaves, 2000). Just as collaboration entails working toward a shared goal, it also requires mutual trust and respect to thrive. Collaboration, therefore, is born out of the efforts made by those seeking to strengthen collaborative engagement (Käppeli, 1995). A central tenet of collaboration is that groups of task-oriented individuals strive to fulfill work-related objectives in a unified manner (James, Dunning, Connolly, & Elliott, 2007). Though teacher collaboration is generally mentioned in association with occupational solidarity in the literature, they are two entirely different concepts. Whereas collaboration is intrinsically related to collaborative actions, occupational solidarity pertains to school culture and the quality of teachers' interpersonal relationships (Kelchtermans, 2006). Naturally, schools where teachers engage in collaborative actions and in which professional collaboration is prioritized exhibit higher levels of success than those that do not.

Successful schools are those where student performance is high and where teachers are not isolated from one another and are instead encouraged to collaborate with each other. In other words, schools that value collaboration give importance to instruction and professional development as means to enhance student learning (Choi & Kang, 2019; Little, 1982; OECD, 2020; Shulman & Shulman, 2004). In addition to being a multifaceted process that brings benefits to schools, collaboration between teachers seeks to provide support and guidance with regard to student development, learning, and behavioral problems (Jurkowski & Muller, 2018). When, moreover, teachers work together in teams, they not only act as a real-life model for students to learn in a collaborative manner but also play an important role in students' desire to cooperate with others (Coke, 2005).

Collaboration involves, among other things, voluntary commitment, a shared approach toward a common goal, equality among participants, shared responsibility in decision making, shared responsibility in attaining results, knowledge sharing, and continued development (Cook & Friend, 1991). Johnston, Markle, and Arhar (1988) highlight that the literature on collaborative schools addresses certain behaviors in teachers, such as sharing, helping, support, shared decision making, and feedback. Researchers stress that acts of collaboration are encouraged by certain norms of cooperation that are themselves determined by teachers and school administrators. When looking from the vantage point of disadvantaged schools, for instance, occupational collaboration, in addition to school administrator support and access to sufficient resources, is highly effective in increasing teacher retention in these schools (Allensworth, Ponisciak, & Mazzeo, 2009). Occupational collaboration, therefore, is a requisite characteristic for schools to be considered successful in this specific context. Since school success is invariably linked to teacher and student performance, properly engaged teachers have the innate potential to overcome whatever disadvantages may emerge in those school environments where collaboration is encouraged by administrators.

Since teachers need to have forged close relationships with one another in order to realize effective collaboration, their perception around greater amounts of social capital in their schools collaboration is expected to increase. This notion is further exemplified by Putnam (1993), who shows that social capital expedites effective collaboration. Given its grounding in human relations, social capital is essential for those seeking to strengthen and synergize collaboration (Fukuyama, 2005). Cooperation between acquainted individuals is the fertile soil needed for trust to thrive, and trust plays an important role in the formation of social capital between institutions and members of the society in which they operate (Beem, 1999). While social capital and collaboration are immanently linked to one another, sometimes social capital proceeds collaboration, and sometimes it is the opposite. Ho (1999) mentions that government policies aiming to increase parents' social capital are one way to amplify collaboration between parents and schools. As such, strengthening social capital is expected to result in more robust collaboration. This means that solidarity among teachers in schools with greater amounts of social capital is expected to be higher and social relations requiring reciprocity are expected to be more positive. Therefore, perceived social capital in schools and occupational collaboration among teachers are considered mutually related concepts. Programs encouraging professional collaboration between teachers will promote increased motivation in teachers and more effective learning in students. Thus, it is imperative for researchers to identify the strength and quality of the social capital produced when teachers build close relationships with one another. The same can be said for collaboration, as it is a major factor in predicting both student and teacher performance. Likewise, ascertaining the relation between perceived social capital and professional collaboration will aid researchers and practitioners to take more informed steps while deciding on how to move forward. This study, therefore, seeks to investigate the relationship between teachers' attitudes toward collaborating at the professional level and how they perceive social capital in their schools. As such, we have sought answers to the following questions:

Journal of Educational Leadership and Policy Studies
ISSN#: 2473-2826

1. How do teachers perceive social capital in their schools and what are their attitudes toward professional collaboration?
2. Is there a significant correlation between the social capital teachers perceive in their schools and their attitudes toward professional collaboration?
3. Can teachers' perceptions toward the social capital extant in their schools be used to predict their attitudes toward professional collaboration?

Methodology

This section sheds light on the research model, samples, data collection instruments, and data analysis methods used in this study.

Research Model

The current study follows a quantitative method and, was designed as a relational survey. Relational studies seek to determine the relationship between two or more variables and to investigate how an increase or decrease in one variable affects other variables (Tan, 2014). Specifically, it has been sought to examine the relationship between how teachers employed in public primary and middle schools in Turkey perceive social capital in their schools and their attitudes toward professional collaboration.

Research Sample

The research sample was composed of 456 teachers employed in Istanbul's Esenyurt district during the second semester of the 2020–2021 academic year. We decided to use simple random sampling to select participants because it ensures not only that each member of a set population has an equal opportunity to be included in the sample group but also that every possible sample of a given size has the same chance of being selected (West, 2010). The advantages of this sampling method are that it requires minimum knowledge about the population, it has high internal and external validity, and it allows data to be easily analyzed (Acharya, Prakash, Saxena, & Nigam, 2013). Table 1 provides information on the demographics of teachers making up the sample.

Journal of Educational Leadership and Policy Studies
ISSN#: 2473-2826
Southern Connecticut State University

Table 1

Sample Group Demographics

Independent Variable	Groups	f	%
Gender	Female	303	66.4
	Male	153	33.6
	Total	*456*	*100*
School Type	Primary School	217	47.6
	Middle School	239	52.4
	Total	*456*	*100*
Employment Status	Permanent	425	93.2
	Wage	31	6.8
	Total	*456*	*100*
Age Group	20–30	64	14.0
	31–40	151	33.0
	41–50	146	32.0
	51 and older	95	20.8
	Total	*456*	*100*
Total Years as a Professional	0–5 years	66	14.5
	6–10 years	62	13.6
	11–15 years	78	17.1
	16 or more years	250	54.8
	Total	*456*	*100*
Years of Employment in Current School	0–4 years	197	43.2
	5–9 years	148	32.5
	10 or more years	111	24.3
	Total	*456*	*100*

Table 1 reveals that the sample group was composed of 303 (66.4%) female and 153 (33.6%) male teachers. Of the grand total, 217 (47.6%) were employed in primary schools whereas 239 (52.4%) were employed in middle schools; 425 (93.2%) were permanent staff members while 31 (6.8%) were temporarily employed as hourly wage earners. Moreover, 64 (14.0%) teachers were aged 20–30, 151 (33.0%) were aged 31–40, 146 (32.0%) were aged 41–50, and 95 (20.8%) were 51 years of age or older. In terms of total years in the profession, 66 (14.5%) had worked as teachers for 0–5 years, 62 (13.6%) for 6–10 years, 78 (17.1%) for 11–15 years, and 250 (54.8%) for 16 years or more. Finally, with respect to years employed in one's current school, 197 (43.2%) of teachers had worked in their school for 0–4 years, 148 (32.5%) for 5–9 years, and 111 (24.3%) for 10 years or more.

Data Collection Instruments

The *Scale of Social Capital in Schools* (SSCS) developed by Polatcan (2018) was employed to examine data on teachers' perceived social capital in their schools. It was also utilized the *Scale*

of Attitude toward Professional Collaboration among Teachers (SAPCT)—a scale created by Yılmaz and Çelik (2020) to collect data on teachers' attitudes toward professional collaboration. Composed of thirty-one items, the SSCS is a five-point Likert scale ({1} = completely disagree to {5} = completely agree) with a possible score range of 31 to 155. Both an Explanatory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) were conducted during the scale's development phase. The EFA indicated that the scale was composed of five factors and explained 64.83% of the total variance. The CFA found the degree of freedom ratio for the chi-square, RMSEA, GFI, and CFI values to be of excellent fit and the AGFI value to be acceptable. Whereas Cronbach's Alpha coefficient (α) was found to be .94 during the scale's original development, we obtained an α of .97 after conducting our own reliability analysis. As a result, the scale can be considered reliable.

The thirteen-item SAPCT is also a five-point Likert scale ({1} = completely disagree to {5} = completely agree) with a possible score range of 13 to 65. Similar to the SSCS, both an EFA and CFA were conducted during the scale's development phase. Through an EFA, this scale was found to be composed of four factors and to explain 41.10% of total variance. The CFA resulted in the degree of freedom ratio for the chi-square, GFI, AGFI, IFI, RMR, CFI, NFI, and RMSEA values being calculated. These values establish that the scale is an acceptable metric with which to perform research. Item-total correlations ranging between .45 and .68 were ascertained during the reliability analysis phase, which attests to the scale's high internal reliability. The difference between the item average scores of the upper and lower twenty-seventh percentiles was scrutinized, and this difference was found to be statistically significant. Whereas the SAPCT initially earned an α of .87, we obtained an α value of .94 based on the data we collected from the teachers participating in our study. We can therefore safely conclude that this scale provides reliable results.

Data Analysis

We used SPSS v.22 to analyze the data collected. Normality assumptions of the data were first examined during this process. As a result, both the scale itself and its sub-dimensions were found to be normally distributed. After this, descriptive statistics for the data were given. Then the correlation between perceived social capital in schools and attitudes toward professional collaboration was tested using Pearson's correlation analysis, and correlation coefficients (r) were determined. We further used a multiple linear regression analysis to determine how well perceived social capital in schools explains professional collaboration. Prior to performing a regression analysis, however, we tested both multicollinearity and autocorrelation assumptions.

Findings

This section describes the steps taken while analyzing the data we collected and further showcases the findings obtained through these analyses.

First Problem

Journal of Educational Leadership and Policy Studies
ISSN#: 2473-2826
Southern Connecticut State University

This section, after investigating the assumptions of normality for the data, offers the findings for teachers' perceived social capital in their schools and their attitudes toward professional collaboration. Table 2 provides descriptive statistics on the data collected.

Table 2

Descriptive statistics obtained from the SSCS and SAPCT

Metrics	N	$\bar{X}$	Median	Mode	ss	Skewness	Kurtosis	Min–Max Values
Scale of Social Capital in Schools	456	3.29	3.29	3.06	.69	-.124	.114	1.19-5.00
Commitment	456	3.38	3.33	4.00	.79	-.260	.215	1.00-5.00
Social Interaction Bonds	456	3.38	3.30	3.00	.69	-.094	.382	1.20-5.00
Trust	456	3.15	3.17	4.00	.91	-.235	-.381	1.00-5.00
Engagement	456	3.18	3.25	3.00	.71	-.076	.568	1.00-5.00
Cultural Memory	456	3.28	3.30	3.00	.83	-.248	-.045	1.00-5.00
Scale of Attitude toward Professional Collaboration among Teachers	456	4.30	4.23	4.00	.48	-.428	.225	2.46-5.00

Table 2 reveals that the skewness and kurtosis coefficients of SSCS data—including its subscales—ranged between -1 and +1. Likewise, the skewness and kurtosis coefficients for SAPCT data fell within the same limits. These values indicate normal distribution of data (Tabachnick & Fidell, 2013). Additionally, since the mean, median, and mode values were found to be close to one another, we concluded that the data did not stretch over an abnormal distance (Büyüköztürk, Çokluk-Bökeoğlu, & Köklü, 2009). Based on these findings, we determined the data to be in normal distribution and decided to include parametric tests in subsequent analyses adhering to these findings.

It was found that teachers earned moderate mean scores in perceived social capital in schools ($\bar{X}$=3.29) after analyzing SSCS data. Teachers likewise received moderate mean scores in all of the SSCS's sub-dimensions, with commitment being at $\bar{X}$=3.38, social interaction bonds being at $\bar{X}$=3.38, trust being at $\bar{X}$=3.15, engagement being at $\bar{X}$=3.18, and cultural memory being at $\bar{X}$=3.28. Given this, teachers perceived only moderate, and therefore inadequate, levels of social capital and its compositional elements (i.e., commitment, social interaction bonds, trust, engagement, and cultural memory) to exist in their schools.

Journal of Educational Leadership and Policy Studies
ISSN#: 2473-2826
Southern Connecticut State University

It was found after analyzing SAPCT data that teachers' attitudes toward professional collaboration were very high ($\bar{X}$=4.30) when compared to mean data scores. Based on this, we can conclude that teachers viewed collaborating with each other on a professional level in a positive light.

Second Problem

The section examines the correlation between how teachers perceive social capital in their schools and their attitudes toward professional collaboration. This correlation was interpreted by calculating Pearson's correlation coefficient (r), because the data were found to be distributed normally. The characteristics of the data distribution are shown in Table 3.

Table 3

Descriptive statistics obtained from the SSCS and SAPCT

		Perceived Social Capital in Schools	Commitment	Social Interaction Bonds	Trust	Engagement	Cultural Memory
Teacher Attitudes Toward Professional Collaboration	R	.404**	.379**	.396**	.303**	.334**	.368**
	Sig.	.000	.000	.000	.000	.000	.000
	N	456	456	456	456	456	456

Table 3 shows that there is a positive, moderate, and meaningful correlation (r=.404, p<.01) between how teachers perceive social capital in their schools and their attitudes toward professional collaboration. In fact, we found there to be a positive, moderate, and meaningful correlation to exist between all of the dimensions composing perceived social capital in schools and teachers' attitudes toward professional collaboration. We found Pearson's r for the correlation between commitment and professional collaboration to be r=.379, r=.396 between commitment and social interaction bonds, r=.303 between commitment and trust, r=.334 between commitment and engagement, and r=.334 between commitment and cultural memory. These findings indicate that an increase in perceived social capital in schools leads to a moderate improvement in teachers' attitudes toward professional collaboration.

Journal of Educational Leadership and Policy Studies
ISSN#: 2473-2826
Southern Connecticut State University

Third Problem

This section examines whether teachers' perceptions of social capital in their schools explain their attitudes toward professional collaboration in a meaningful manner. Prior to performing a Multiple Regression Analysis, we checked the existence of multicollinearity with three preconditions pointed out by Can (2018). The first of these preconditions is that data be in normal distribution, which, as stated above, was found to be true. The second precondition is to examine linearity between the predictor variable's (i.e., perceived social capital in schools) sub-dimensions and themselves. The results of this examination are presented in Table 4.

Table 4

Correlation analysis of perceived in-school social capital

Dimensions		Commitment	Social Interaction Bonds	Trust	Engagement	Cultural Memory
Commitment	Pearson Correlation Coefficient (r)	1	.783**	.773**	.636**	.726**
Social Interaction Bonds			1	.730**	.715**	.790**
Trust				1	.632**	.718**
Engagement					1	.672**
Cultural Memory						1

Table 4 shows that all of the correlation values between the sub-dimensions of perceived social capital in schools were less than .80. This being the case, we can conclude that the relationship between predictor variables is small. Table 5 shows the Tolerance Values (1/VIF), which indicate the percentage of variance that the other independent variables were unable to explain, and the Variance Inflation Factors (VIF) calculated to determine the different relations that exist between predictor variables.

Journal of Educational Leadership and Policy Studies
ISSN#: 2473-2826
Southern Connecticut State University

Table 5

Tolerance and VIF values of perceived social capital in schools

Explanatory Variables	Tolerance	VIF
Commitment	.294	3.399
Social Interaction Bonds	.237	4.216
Trust	.337	2.971
Engagement	.449	2.229
Cultural Memory	.297	3.366

Table 5 illustrates that the tolerance values for the different predictor variables (i.e., commitment, social interaction bonds, trust, engagement, and cultural memory) were greater than .20. VIF values, however, were smaller than 10. This means that predictor variables did not have a linear relation. Table 6 presents the findings for the Multiple Linear Regression Analysis conducted to determine whether teachers' perceived social capital in schools were significant predictors of their attitudes toward professional collaboration.

Table 6

Regression analysis on how teacher attitudes toward professional collaboration explain by perceived social capital sub-dimensions in schools

Variable	B	Standard Deviation B	β	T	p	R	R^2	F	p	Durbin Watson
Constant	3.293	.108		30.493	.000					
Commitment	.115	.048	.190	2.408	.016					
Social Interaction Bonds	.126	.061	.182	2.068	.039					
Trust	-.052	.038	-.099	-1.346	.179	.421	.177	19.411	.000	2.418
Engagement	.051	.043	.077	1.198	.231					
Cultural Memory	.059	.045	.103	1.318	.188					

*Attitudes toward Professional Collaboration = 3.293+ .115*Commitment+ .126*Social Interaction Bonds-.052*Trust+.051*Engagement+.059*Cultural Memory*

Table 6 indicates findings for the study's third problem. The table shows that the Durbin Watson coefficient, used to test autocorrelation in the regression model, was first examined. "The critical value for the Durbin Watson test is 2, and values at or near 2 indicate the complete non-existence of or negligible amount of autocorrelation" (Genceli, 1973, p. 174). That being the case, no issue with regard to autocorrelation was found in the above regression analysis table. The regression analysis that we conducted put forth that the sub-dimensions composing teachers' perceived social capital in schools collectively explained roughly 18% of the total variance in their attitudes toward professional collaboration. In terms of the order of relative importance of predictor variables, commitment was at the head, followed by social interaction bonds, cultural memory, trust, and engagement. We found that only the sub-dimensions of commitment and social interaction bonds were significant predictors of teachers' attitudes toward professional collaboration.

Discussion, Results, and Recommendations

In this study, which examines the correlation between how 456 teachers perceived social capital in their schools and their attitudes toward professional collaboration, the following results were obtained: Participant teachers earned moderate mean scores on the scale measuring their perceived social capital in schools. Likewise, they earned moderate scores for all of the sub-dimensions comprising perceived in-school social capital (i.e., commitment, social interaction bonds, trust, engagement, and cultural memory). As a result, the teachers participating in this study were found not to perceive high amounts of social capital in their respective schools. Similarly, Polatcan (2017) and Akman (2017) found in their own studies that teachers perceived moderate levels of social capital. Köybaşı, Uğurlu, and Güner (2017), however, found that teachers did not perceive any social capital in their schools. On the other hand, Doğan and Bozkurt-Doğancı (2017), as well as Sadık and Ergüven-Akbulut (2020) found teachers to perceive high amounts of social capital in their schools. Other studies in the literature have found differences in perceived social capital in schools. This being the case, our study indicates that teachers need to have higher levels of perceived social capital in schools. Previous studies have shown that relationships based on trust, social networks, and mutual support can lead to increased social capital (Kahne, O'Brien, Brown, & Quinn, 2001; Flint, 2011; Koshkin & Novikov, 2018; Putnam, 1995). Social networks must be maintained in order for schools to preserve their existing social capital (Tsang, 2009). Likewise, it is important that school administrators endeavoring to build social capital be able to establish a trusting environment and facilitate positive communication in their schools (Kwatubana, 2017). As such, schools must become institutions in which robust social interaction is commonplace and in which teachers can interact with one another without fear. To do this effectively, school administrators need to take into consideration the norms, values, and levels of trust of extant social networks (Forsyth & Adams, 2004).

Teachers' attitudes toward professional collaboration were found to be rather high. Kubilay (2020) found similar results in his study; teachers earned high scores on their attitudes toward working in teams. Since, under such conditions, teachers are more easily able to fulfill their duties and responsibilities, they are more inclined to collaborate with one another. In their study

on interdepartmental collaboration, Alım and Doğanay (2016) found that although teachers held professional collaboration to be important, they considered themselves inadequate in engaging in collaborative works. Similarly, Cerit (2009) found that teachers infrequently collaborated with one another, that they had little trust in their colleagues, and that trust had a positive, moderate correlation with their willingness to collaborate with other teachers. Ekinci (2012) found trust—the most important component of social capital—to be the best predictor of sharing knowledge in schools. Likewise, Lubell (2007) found trust to be effective in precipitating collaborative planning. Knowing this, trust in one's colleagues is one of the prerequisites for collaboration and knowledge sharing. As articulated by Slater (2004), the ability to collaborate with others is deemed to be a fundamental component of modern school reforms. Consequently, cooperation and a collaborative school culture form the basis of any venture seeking to improve the school (Bellei, Vanni, Valenzuela, & Contreras, 2015; Björkman, 2008; Hargreaves, 1994; Connolly & James, 2006; James & Connolly, 2000; Spillane & Seashore, 2002). Teachers engaged in activities seeking to move their school toward institutionalization not only take on collective responsibility in student learning and in developing advanced instructional standards, but also share ideas, materials, and experiences in their professional endeavors (Bellei et al., 2015). As such, teachers and school administrators are expected to obtain the highest returns from social capital through collaborative relationships (Taufik & Dwiningrum, 2019). In order for schools to be successful—a highly valued outcome in the school improvement process—collaboration should be encouraged in schools and trust among teachers should be strengthened.

There is a positive, moderate, and significant correlation between how teachers perceive social capital in their schools and their attitudes toward professional collaboration. Likewise, all of the compositional elements of social capital (i.e., commitment, social interaction bonds, trust, engagement, and cultural memory) had a positive, moderate relation with teachers' attitudes towards professional collaboration. As perceived social capital in schools increases, teachers' attitudes toward professional collaboration also improve. Akman (2017) cites professional solidarity among teachers as a possible reason explaining why teachers might perceive there to be a high amount of social capital in their schools. In schools where professional collaboration is the norm, teachers frequently devote themselves to tasks serving one another, their school, and instruction (Ertürk & Akgün, 2021). Greater commitment to one's colleagues and schools may result in more frequent positive social interactions and in increased social capital. When individuals have more interactions and communicate more frequently with others, Putnam (1995) argues, their mutual trust levels also increase. A greater number of trusting relationships may induce an increase in social capital, meaning that it is possible for professional collaboration to increase as a result of greater social capital or for trust-based social capital to increase as a result of engaging in more interactive collaborative endeavors. According to Leana and Pil (2006), social relations are the source of knowledge and enhanced interpersonal trust both for students and teachers. Since social capital plays an important role in augmenting school effectiveness (Tsang, 2009), teachers must engage in robust collaborative efforts to increase instruction-based success in schools, as doing so will pave the way to greater school quality through enhanced school capital (Taufik & Dwiningrum, 2019). As stated by Mandarano (2009), increased social capital is a direct result of collaborative planning, which he considers to be a forerunner to the

planning process. Accordingly, teachers will be able to forge more positive relations and engage in more effective professional collaboration as they perceive greater amounts of social capital in their schools.

The sub-dimensions of perceived social capital in schools only explain a meager 18% of the total variance in teachers' attitudes toward professional collaboration. Moreover, only commitment and social interaction bonds were significant predictors of professional collaboration. The study's results indicate that teachers perceive only a moderate level of social capital in their schools and that these perceptions predict only a modicum of professional collaboration. Partnerships formed in educational environments working toward mutual goals can facilitate the development of a sense of shared responsibility, equality, and commitment (Connolly & James, 2006). Moreover, personal commitment and communication skills are important components in increasing the effectiveness of teachers' abilities to collaborate with one another (Pülschen & Pülschen, 2015). Since certain goals need to be shared for effective collaboration to be realized, all individuals must inevitably affirm these goals and be willing to work toward them with mutual commitment (Slater, 2004). In a similar vein, social networks, in addition to acting as venues where ideas and knowledge can be exchanged, must be based on trust, embrace certain norms, and support the formation of collaborative relationships (Dall'Asta, Marsili, & Pin, 2012). There are, in this regard, studies in the literature examining the role of social networks in determining the quality of collaboration and teamwork (Helbling ve Anderson, 2016; Mandarano, 2009; Petrescu-Prahova, Belza, Leith, Allen, Coe, & Anderson, 2015; Vallejos, Macke, Olea, & Toss, 2008). These studies reveal that societies in which trust and social interaction bonds—two variables explaining professional collaboration in schools—are found at higher levels tend to be richer in social capital. Consequently, it is hypothesized that teachers with stronger levels of trust and more robust social interactions will collaborate much more effectively. The study's results imply that it is imperative to increase perceived social capital between teachers in schools. To accomplish this, the existence of a positive school climate and culture is essential. In order for schools to witness increased levels of social interaction, school administrators should establish an environment of trust between teachers and prevent teachers from becoming isolated by instituting certain cohesive activities. It is also recommended that teacher participation in these activities are strongly encouraged so that teachers became aware that they can easily expand their social interaction networks if they desire.

References

Acharya, A. S., Prakash, A., Saxena, P., & Nigam, A. (2013). Sampling: why and how of it?. *Indian Journal of Medical Specialities*, *4*(2), 330–333.

Akman, Y. (2017). Sosyal sermaye ve öğretmenlerin okulları ile özdeşleşmeleri ilişkisinde lider-üye etkileşiminin aracılık etkisi. *Bartın Üniversitesi Eğitim Fakültesi Dergisi*, *6*(1), 263–281.

Alım, M., & Doğanay, G. (2016). Coğrafya öğretiminde zümreler arası işbirliğinin önemi ve ortak konuların analizi. *Doğu Coğrafya Dergisi*, *21*(35), 1–16. https://doi.org/10.17295/dcd.59154

Allensworth, E., Ponisciak, S., & Mazzeo, C. (2009). *The schools teachers leave: teacher mobility in Chicago public schools*. Consortium on Chicago School Research, University of Chicago, Chicago.

Beem, C. (1999). *The necessity of politics. Reclaiming American public life (morality and society)*. Chicago: University of Chicago Press.

Bellei, C., Vanni, X., Valenzuela, J. P., & Contreras, D. (2015). School improvement trajectories: an empirical typology. *School Effectiveness and School Improvement*, *27*(3), 275–292. http://dx.doi.org/10.1080/09243453.2015.1083038

Björkman, C. (2008). *Internal capacities for school improvement: principals´ views in Swedish secondary schools* (Academic dissertation), Faculty of Social Sciences, Umeå University, Umeå.

Büyüköztürk, Ş., Çokluk-Bökeoğlu, Ö., & Köklü, N. (2009). *Sosyal bilimler için istatistik* (4th ed.), Ankara: Pegem Akademi.

Bourdieu, P. (1986). The forms of capital. In J. G. Richardson (Ed.), *Handbook of theory and research for the sociology of education* (pp. 241–258). Westport, CT: Greenwood Press.

Can, A. (2018). *SPSS ile bilimsel araştırma sürecinde nicel veri analizi* (6th ed.), Ankara: Pegem Akademi.

Cerit, Y. (2009). Öğretmenlerin örgütsel güven düzeyleri ile işbirliği yapma düzeyleri arasındaki ilişki. *Uludağ Üniversitesi Eğitim Fakültesi Dergisi*, *22*(2), 637–657.

Choi, J., & Kang, W. (2019). Sustainability of cooperative professional development: focused on teachers' efficacy. *Sustainability*, *11*(3), 585. doi: 10.3390/su11030585

Coke, P. K. (2005). Practicing what we preach: an argument for cooperative learning opportunities for elementary and secondary educators. *Education*, *126*(2), 392–398.

Coleman, J. S. (1988). Social capital in the creation of human capital. *The American Journal of Sociology*, 94, 95–120.

Connolly, M., & James, C. (2006). Collaboration for school improvement: a resource dependency and institutional framework of analysis. *Educational Management Administration & Leadership*, *34*(1), 69-87. https://doi.org/10.1177/1741143206059540

Cook, L., & Friend, M. (1991). Principles for the practice of collaboration in schools. *Preventing School Failures: Alternative Education for Children and Youth*, *35*(4), 6–9. https://doi.org/10.1080/1045988X.1991.9944251

Dall'Asta, L., Marsili, M., & Pin, P. (2012). Collaboration in social networks. *PNAS-Proceedings of the National Academy of Sciences of the United States of America*. *109*(12), 4395-4400. https://doi.org/10.1073/pnas.1105757109

Doğan, Ö., & Bozkurt-Bostancı, A. (2017). Okulların sosyal sermaye düzeyleri ile öğretmenlerin psikolojik sözleşmeleri arasındaki ilişki. *Uşak Üniversitesi Sosyal Bilimler Dergisi*, *10*(Special Edition 2), 313–334.

Ekinci, A. (2012). The effects of social capital levels in elementary schools on organizational information sharing. *Educational Sciences: Theory & Practice*, *12*(4), 2513–2520.

Ertürk, R., & Akgün, N. (2021). Öğretmenlerin davranışsal güçlendirilmesi ile örgütsel adanmışlıkları arasındaki ilişki. *Bolu Abant İzzet Baysal Üniversitesi Eğitim Fakültesi Dergisi*, *21*(4), 1212–1229. https://dx.doi.org/10.17240/aibuefd.2021..- 998170

Flint, N. (2011). *Schools, communities and social capital: building blocks in the 'Big Society'* (Research Associate Full report). National College for Leadership of Schools and Children's Services, Manchester. Accessed from https://dera.ioe.ac.uk/2981/1/download%3Fid%3D147205%26filename%3Dschools-communities-social-capital-full-report.pdf on Jan. 05, 2022.

Forsyth, P. B., & Adams, C. M. (2004). Social capital in education: taking stock of concept and measure. In W. K. Hoy & C. G. Miskel (Eds.), *Educational Administration, Policy, and Reform: Research and Measurement* (pp. 251–278). Greenwich, CT: Information Age Publishing.

Fukuyama, F. (1995). *Trust: the social virtues and the creation of prosperity*. New York: Free Press.

Fukuyama, F. (2005). *Güven: sosyal erdemler ve refahın yaratılması* (Trans. A. Buğdaycı). İstanbul: Türkiye İş Bankası Kültür Yayınları.

Gannon, B., & Roberts, J. (2020). Social capital: exploring the theory and empirical divide. *Empirical Economics*. 58, 899-919. https://doi.org/10.1007/s00181-018-1556-y

Genceli, M. (1973). İki değişkenli doğrusal regresyonda zaman faktörü. *İstanbul Üniversitesi İktisat Fakültesi Mecmuası*, *33*(1–4), 167–186.

Hanifan, L. J. (1916). The rural school community center. *The ANNALS of the American Academy of Political and Social Science*, *67*(1), 130–138. https://doi.org/10.1177/000271621606700118

Hargreaves, A. (2000). Four ages of professionalism and professional learning. *Teachers and Teaching: History and Practice*, *6*(2), 151–182. https://doi.org/10.1080/713698714

Helbling, J., & Anderson, J. (2016). Social Network Analysis for assessing research team collaboration and implementation capacity. *2016 Resilience Week (RWS)*. doi: 10.1109/rweek.2016.7573328

Ho, S. E. (1999). *Parental involvement in children's education: interpretation of cultural and social capital*. Hong Kong: The Chinese University Press.

Homans, G. (1961). *Social behavior: its elementary forms*. New York: Harcourt, Brace and World.

Jacobs, J. (1961). *The life and death of great American cities*. New York: Random House.

James, C. R., & Connolly, U. (2000). *Effective change in schools*. London: Routledge.

James, C. R., Dunning, G., Connolly, M., & Elliott, T. (2007). Collaborative practice: a model of successful working in schools. *Journal of Educational Administration*, 45, 541–555. https://doi.org/10.1108/09578230710778187

Johnston, J. H., Markle, G. C., & Arhar, J. M. (1988). What research says: cooperation, collaboration, and the professional development of teachers. *Middle School Journal*, *19*(3), 28–32. https://doi.org/10.1080/00940771.1988.11494763

Jurkowski, S., & Muller, B. (2018). Co-teaching in inclusive classes: the development of multiprofessional cooperation in teaching dyads. *Teaching and Teacher Education*, 75, 224–231.

Kahne, J., O'Brien, J., Brown, A., & Quinn, T. (2001). Leveraging social capital and school improvement: the case of a school network and a comprehensive community initiative in Chicago. *Educational Administration Quarterly*, 37(4), 429–461. https://doi.org/10.1177/00131610121969389

Käppeli, S. (1995). Interprofessional cooperation: why is partnership so difficult?. *Patient Education and Counseling*, 26, 251-256. https://doi.org/10.1016/0738-3991(95)00755-O

Kelchtermans, G. (2006). Teacher collaboration and collegiality as workplace conditions. A review. *Zeitschrift für Pädagogik*, *52*(2), 220–237.

Koshkin, A. P., & Novikov, A. V. (2018). Social capital of students and faculty as a resource for improving the quality of education. *Revista ESPACIOS*. *39*(23).

Köybaşı, F., Uğurlu, C. T., & Güner, A. G. (2017). Okulların sahip oldukları sosyal sermayeye ilişkin öğretmen görüşleri. *YYÜ Eğitim Fakültesi Dergisi*, *14*(1), 102–122. http://dx.doi.org/10.23891/yyuni.2017.4

Kubilay, F. (2020). *Yönetici ile öğretmen işbirliği düzeyinin öğretmen öz-yeterlik algıları üzerine etkisi* (Unpublished master's thesis), Maltepe Üniversitesi, Lisansüstü Eğitim Enstitüsü, İstanbul.

Kwatubana, S. (2017). The principals' role in developing social capital for the promotion of healthy school environments. *International Journal of Social Sciences and Humanity Studies*, *9*(2), 109–125.

Leana, C., & Pil, F. K. (2006). Social capital and organizational performance: evidence from urban public schools. *Organization Science*, *17*(3), 353–366. https://doi.org/10.1287/orsc.1060.0191

Little, J. W. (1982). Norms of collegiality and experimentation: workplace conditions of school success. *American Educational Research Journal*, *19*(3), 325–340. https://doi.org/10.2307/1162717

Lubell, M. (2007). Familiarity breeds trust: collective action in a policy domain. *The Journal of Politics*, *69*(1), 237–250. https://doi.org/10.1111/j.1468-2508.2007.00507.x

Mandarano, L. A. (2009). Social network analysis of social capital in collaborative planning. *Society & Natural Resources*, *22*(3), 245–260. https://doi.org/10.1080/08941920801922182

OECD (2001). *The well-being of nations: the role of human and social capital*. Paris: OECD Publishing. https://doi.org/10.1787/9789264189515-en

OECD (2020). *Professional growth in times of change: supporting teachers' continuing professional learning and collaboration* (OECD Education Policy perspectives, No. 10), Paris: OECD Publishing. https://doi.org/10.1787/753eaa89-en

Petrescu-Prahova, M., Belza, B., Leith, K., Allen, P., Coe, N. B., & Anderson, L. A. (2015). Using social network analysis to assess mentorship and collaboration in a public health

network. *Preventing Chronic Disease: Public Health Research, Practice, and Policy*, 12. http://dx.doi.org/10.5888/pcd12.150103

Polatcan, M. (2018). Okullarda sosyal sermaye ölçeği: bir ölçek geliştirme çalışması. *Uluslararası Türkçe Edebiyat Kültür Eğitim Dergisi*, *7*(4), 2721-2732.

Portes, A. (1998). Social capital: its origins and applications in modern sociology. *Annual Review of Sociology, 24*(1), 1–24. https://doi.org/10.1146/annurev.soc.24.1.1

Putnam, R. (1993). *Making democracy work: civic traditions in modern Italy*. Princeton, NJ: Princeton University Press.

Putnam, R. D. (1995). Tuning in, tuning out: the strange disappearance of social capital in America. *Political Science and Politics*, *28*(4), 664–683. https://doi.org/10.2307/420517

Pülschen, S., & Pülschen, D. (2015). Preparation for teacher collaboration in inclusive classrooms-stress reduction for special education students via acceptance and commitment training: a controlled study. *Journal of Molecular Psychiatry*, *3*(8), doi: 10.1186/s40303-015-0015-3

Sadık, F., & Ergüven-Akbulut, S. (2020). Okulların sosyal sermayesi ile öğretmenlerin akademik iyimserlik düzeyleri arasındaki ilişki. *Akdeniz Eğitim Araştırmaları Dergisi*, *14*(34), 396-420. https://doi.org/10.29329/mjer.2020.322.19

Scrivens, K., & Smith, C. (2013). *Four interpretations of social capital: an agenda for measurement* (OECD Statistics Working Papers, No. 55). OECD, Paris. Accessed from https://www.oecd-ilibrary.org/economics/four-interpretations-of-social-capital_5jzbcx010wmt-en on Dec. 15, 2021.

Shulman, L. S., & Shulman, J. H. (2004). How and what teachers learn: a shifting perspective. *Journal of Curriculum Studies*, *36*(2), 257-271. https://doi.org/10.1080/0022027032000148298

Slater, L. (2004). Collaboration: a framework for school improvement. *International Electronic Journal for Leadership in Learning*, *8*(5).

Spillane, J. P., & Seashore, L. K. (2002). School improvement processes and practices: professional learning for building instructional capacity. In J. Murphy (Ed.), *Challenges of leadership: Yearbook of the national society for the study of education* (pp. 83–102). Chicago, IL: University of Chicago.

Tabachnick, B.G., & Fidell, L.S. (2013). *Using multivariate statistics* (6th ed.), Boston: Allyn and Bacon.

Tan, L. (2014). Correlational study. In W. F. Thompson (Ed.), *Music in the social and behavioral sciences: an encyclopedia* (pp. 269–271). Thousand Oaks: SAGE Publications. Accessed from https://repository.nie.edu.sg/bitstream/10497/18115/4/BC-MSB-2014-269.pdf on Sept. 10, 2021.

Taufik, M. F., & Dwiningrum, S. I. A. (2019). Social capital and school quality. *Advances in Social Science, Education and Humanities Research*, 398, 203–207. https://doi.org/10.2991/assehr.k.200130.042

Tsang, K.-K. (2009). School social capital and school effectiveness. *Education Journal*, *37*(1–2), 119–136.

Vallejos, R. V., Macke, J., Olea, P. M., & Toss, E. (2008). Collaborative networks and social capital: a theoretical and practical convergence. In L. M. Camarinha-Matos & W. Picard

(Ed.), *IFIP – The International Federation for Information Processing*, 283, pp. 43–52, Boston: Springer. https://doi.org/10.1007/978-0-387-84837-2_5

West, P. W. (2016). Simple random sampling of individual items in the absence of a sampling frame that lists the individuals. *West New Zealand Journal of Forestry Science*, *46*(15). https://doi.org/10.1186/s40490-016-0071-1

Woolcock, M. (1998). Social capital and economic development: toward a theoretical synthesis and policy framework. *Theory & Society*, 27, 151–208. http://dx.doi.org/10.1023/A:1006884930135

Yılmaz, K., & Çelik, M. (2020). Öğretmenler arasında mesleki işbirliğine yönelik tutum ölçeğinin geliştirilmesi. *MANAS Sosyal Araştırmalar Dergisi*, *9*(2), 731–740. https://doi.org/10.33206/mjss.584856