

Teachers' Social Network Tendency and Workplace Friendship: A Mixed-Method Study*

Sosyal Ağ Eğilimi ve İş Yeri Arkadaşlığı: Bir Karma Yöntem Araştırması

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ABSTRACT: This study examines the relationship between teachers' social network tendencies and their perceptions of workplace friendships, employing a mixed-methods convergent parallel design. The study sample was determined using stratified sampling and consisted of 329 teachers working in various high school types (Anatolian, Vocational, Science, etc.) in the Efeler district of Aydın, Turkey. Data were collected via the Social Network Tendencies Scale, Workplace Friendship Scale, and semi-structured interviews with 28 teachers. Findings show that female teachers and those aged 51 and above report higher levels of social networking tendencies and workplace friendship. Teachers working in vocational high schools also score higher on both variables compared to those in other types of schools. Social network tendency was positively associated with workplace friendship ($r=.549$, $p<.05$). Qualitative results suggest that teachers prioritize personal traits, such as empathy, trust, and respect, over hierarchical status in their interactions. The research revealed that quantitative and qualitative findings support each other. The study recommends fostering a trust-based school culture and implementing concrete practices such as structured peer-mentoring to enhance teachers' social interaction.

Keywords: Mixed-method research, social network tendency, teacher, workplace friendship.

ÖZ: Bu çalışma, karma yöntem yakınsak paralel desen aracılığıyla öğretmenlerin sosyal ağ eğilimleri ile işyerinde arkadaşlık algıları arasındaki ilişkiyi incelemektedir. Çalışma örneklemi tabakalı örnekleme yöntemi kullanılarak belirlenmiş ve Türkiye'nin Aydın ilinin Efeler ilçesinde çeşitli lise türlerinde (Anadolu, Meslek, Fen vb.) çalışan 329 öğretmenlerden oluşmuştur. Veriler, Sosyal Ağ Eğilimleri Ölçeği, İşyeri Arkadaşlığı Ölçeği ve 28 öğretmenle yapılan yarı yapılandırılmış görüşmeler yoluyla toplanmıştır. Bulgular, kadın öğretmenlerin ve 51 yaş ve üstü öğretmenlerin daha yüksek düzeyde sosyal ağ eğilimleri ve işyeri arkadaşlığı bildirdiklerini göstermektedir. Meslek liselerinde çalışan öğretmenler, diğer okul türlerindekiyle kıyasla her iki değişkende daha yüksek puan almaktadır. Sosyal ağ eğilimi, işyeri arkadaşlığı ile pozitif bir ilişki içindedir ($r=.549$, $p<.05$). Nitel sonuçlar, öğretmenlerin etkileşimlerinde hiyerarşik statüden çok empati, güven ve saygı gibi kişisel özelliklere öncelik verdiklerini göstermektedir. Araştırma, niceliksel ve niteliksel bulguların birbirini desteklediğini ortaya koymuştur. Çalışma, öğretmenlerin sosyal etkileşimini geliştirmek için güvene dayalı bir okul kültürünün teşvik edilmesini ve yapılandırılmış akran mentorluğu gibi somut uygulamaların hayata geçirilmesini önermektedir.

Anahtar kelimeler: Karma yöntem araştırması, sosyal ağ eğilimi, öğretmen, iş yeri arkadaşlığı.

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Concepts regarding human interactions and social ties in organizations were first introduced to the academic agenda by the Human Relations Approach (Neo-classical management theory) (Mayo, 1933; Roethlisberger & Dickson, 1939). Since then, these concepts have guided the structuring of schools and the optimization of human resources. Today, these interactions are analyzed through more complex structures known as social networks. Social networks refer to the relationships, connections, and communication structures established between individuals or organizations. These structures are social systems in which individuals or groups are connected through various relationships such as friendship, cooperation, and information sharing (Ala et al., 2021; Ilhan et al., 2014).

Social networks emerge through reciprocal communication among individuals and are composed of nodes (individuals, groups, or institutions) and the ties linking these nodes (Scott, 1988; Fuhse, 2015). Through these networks, it is possible to understand how individuals establish connections and how these ties influence the overall social structure (Yeşilbaş-Özenç, 2025). While Social Network Analysis (SNA) typically focuses on mapping these structural patterns, understanding the underlying individual dispositions that drive these connections is equally critical. In this regard, distinct from the network structure itself, *social network tendency* refers to the individual's propensity and willingness to initiate and maintain these ties. In the literature, this concept is often used equivalently with terms such as “networking behavior” or “networking tendency,” emphasizing the proactive efforts individuals make to develop and utilize social contacts. Therefore, before analyzing the complex network structure, it is essential to examine the networking tendencies that act as the micro-level antecedents of these macro-structures.

As in other organizational structures, social networks play an important role in educational organizations. These networks, which develop among teachers, departments, students, and administrators in schools, are effective in various areas, from professional development to teaching performance. These relationships develop both professionally (lesson sharing, professional development activities) and personally and are often shaped by similar demographic characteristics and attitudes (Diehl, 2019). Factors such as leadership, common goals, structured activities, and a supportive collaborative environment (Prenger et al., 2020), as well as physical proximity, participation in project meetings, and teaching experience (Noben et al., 2022), influence the formation of social networks. Additionally, school leadership and institutional policies significantly determine the structure of these networks (Coburn & Russell, 2008). Teacher social networks are influenced by the interplay between personal factors (such as experience and interests) and organizational elements (including school policies and the culture of collaboration). In particular, shared subject areas, professional interests (Hangül & Şentürk, 2019; Yeşilbaş-Özenç & Kalender, 2024), experience (Kaul et al., 2021), trust, and a culture of collaboration (Kolleck et al., 2021) play a critical role in this process. Positive peer relationships contribute to the creation of a more supportive school climate by enhancing teachers' social skills (Escabarte & Gallardo, 2024).

Social relationships among teachers foster cooperation and knowledge sharing, thereby enhancing teaching practices and positively impacting student achievement (Goddard et al., 2007; Leana & Pil, 2006; Moolenaar, 2012). Social networks within

schools enhance the circulation of professional knowledge, promote the dissemination of innovative practices, and contribute to the development of professional learning communities (Moolenaar, 2012; Penuel et al., 2019). Strong peer networks enhance the collective effectiveness, job satisfaction, and stress management skills of teachers, thereby improving the quality of education (Moolenaar et al., 2012; Wolgast & Fischer, 2017). Workplace friendships play a critical role in the formation of these social networks. Conceptually, these relationships are multidimensional, encompassing core elements such as emotional closeness, trust, and support. These relationships, which develop based on mutual trust, support, and social similarity (Sias et al., 2012; Öztürk & Sumbas, 2023), have a positive impact not only on organizational efficiency but also on employees' psychological well-being (Riordan & Griffeth, 1995). Workplace friendships, shaped by factors such as shared tasks, physical proximity, and personality compatibility (Omuris, 2019; Sias et al., 2020), foster a culture of open communication, strengthen organizational commitment (Chen et al., 2024), and contribute to organizational development (Durrah, 2022).

Workplace camaraderie and solidarity among teachers play a crucial role in shaping school culture and enhancing teachers' professional development (García-Martínez et al., 2021). Common projects, department meetings, and shared spaces such as the teachers' lounge are important venues where teacher collaboration and camaraderie develop (Forte & Flores, 2014; Parks & McKay, 2023). These relationships not only create a positive school atmosphere but also enable teachers to perceive school culture more positively (Bilgin & Kiral, 2019; Huang & Wang, 2021). Furthermore, encouraging teacher collaboration can also have a positive impact on students' academic achievement (García-Martínez et al., 2021). The workplace friendships teachers form with their colleagues in schools can increase their tendency to form social networks and encourage them to build relationships. In this context, the effect of teachers' workplace friendships on their social networking tendencies emerges as a topic worthy of research.

Existing literature has extensively documented the positive impact of teachers' social relationships on professional development (Ninković et al., 2022; Penuel, 2012), collaboration (Kolleck et al., 2021; Moolenaar, 2012), and school culture (Bolat & Korkmaz, 2021; Skaalvik & Skaalvik, 2023). However, these studies have predominantly focused on the outcomes of social networks, often overlooking the individual dispositions—specifically 'social network tendencies'—that drive these connections. Furthermore, prior research has largely relied on single-method designs, failing to capture the contradictions between self-reported quantitative data and the complex 'lived experiences' of teachers. Theoretical perspectives suggest that demographic variables such as gender and school context significantly shape these interactions; for instance, female professionals are often reported to value emotional support in workplace friendships more than their male counterparts (Sias et al., 2012), and vocational school environments may necessitate different collaborative structures compared to academic high schools. Addressing these gaps, this study contributes to the literature in three specific ways: (1) it explicitly examines the interplay between individual networking tendency and workplace friendship, (2) it provides a comparative analysis across different school types (e.g., Vocational vs. Science High Schools) in the Turkish context, and (3) it utilizes a mixed-methods design to explain not just the 'presence' of these networks but the 'reasons' behind them.

The purpose of this study is to investigate the social networking tendencies and perceptions of workplace friendships among teachers employed in public secondary education institutions located in the Efeler district of Aydın Province. In this context, the research question is: *“What is the role of teachers' social networking tendencies and workplace friendship perceptions on their views regarding social networks and workplace friendship at school?”* The sub-problems of the study are as follows:

1. Do teachers' social networking tendencies and perceptions of workplace friendship show significant differences according to variables such as gender, age, length of service at the school, professional seniority, and type of school?
2. What are teachers' social network tendencies and workplace friendship perceptions like?
3. Is there a significant relationship between teachers' social network tendencies and their perceptions of workplace friendships?
4. What are teachers' views on social networks and workplace friendship at school?
5. To what extent do teachers' views on social networks and workplace friendships at school confirm their social networking tendencies and perceptions of workplace friendships?

The original value of this study lies in its simultaneous examination of two distinct but complementary constructs that shape the social fabric of schools. While "social networking tendency" represents a proactive behavioral inclination to initiate and maintain connections, "workplace friendship" captures the emotional and relational depth of these bonds (e.g., trust, support). Existing literature often addresses these concepts separately; however, investigating them together offers a unique perspective. By bridging the gap between the behavioral intent to network and the emotional quality of the resulting relationships, this study provides a holistic understanding of how teachers' social structures are both formed and sustained.

Method

This study employed the Convergent Parallel Design (mixed-methods), involving the concurrent collection and separate analysis of quantitative and qualitative data to cross-validate findings (Creswell, 2017b). The quantitative phase utilized a cross-sectional design to explore the relationship between social networking tendencies and workplace friendship perceptions. Concurrently, the qualitative phase adopted a phenomenological design to deeply explore these concepts not merely as structural ties but as 'lived experiences' loaded with subjective meanings (Creswell & Poth, 2018). This design was chosen to uncover the essence of how teachers define 'friendship' in a professional setting. Finally, integration followed a 'side-by-side comparison' approach; statistical results and thematic findings were merged using a joint display technique (Figure 1) to generate meta-inferences and assess convergence (Creswell & Plano Clark, 2018).

Participants

The study group consists of teachers working in official secondary education institutions in the Efeler district of Aydın (N=329 for quantitative, n=28\$for

qualitative). The quantitative sample was determined using *stratified sampling* across six identified strata: Science, Anatolian, Social Sciences, Fine Arts, Imam Hatip, and Vocational High Schools. To ensure representativeness, the sample distribution (160 female, 169 male) was designed to mirror the proportional weight of each school type in the district based on official data at the time of data collection. Within these strata, participants were selected from school lists using *simple random sampling*, ensuring equal probability of selection (Table 1).

Table 1

Quantitative Data on the Study Group

Demographic Variables	Factors	Frequency	Percentage (%)
Gender	Female	160	48.63
	Male	169	51.37
	Total	329	100.0
Age	29-39 age range	66	20.06
	40-50 age range	162	49.24
	51 and over	101	30.70
	Total	329	100.0
Length of Service at School	1-15 years	307	93.31
	16-30 years	22	6.69
	Total	329	100.0
Professional Seniority	1-15 years	131	39.82
	16-30 years	19898	60.18
	Total	329	100.0
School Type	Science High School	28	8.51
	Anatolian High School	108	32.83
	Social Sciences High School	16	4.86
	Fine Arts High School	22	6.69
	Imam Hatip High School	20	6.08
	Vocational High School	135	41.03
	Total	329	100.0

As shown in the table, the majority of participants work at Anatolian High Schools and Vocational High Schools. The number of participants is similar in terms of gender, with the majority being male teachers. Determination of the Qualitative Study Group In the qualitative dimension of the study, the maximum variation sampling method, one of the purposeful sampling strategies, was employed. The aim of this strategy is to identify common patterns across diverse situations by maximizing the diversity of individuals involved in the sample (Creswell, 2013). Accordingly, the study group consisted of 28 teachers (15 female, 13 male) working at a vocational high school

-a school type identified in the quantitative phase as having distinct social dynamics. This sampling strategy was explicitly chosen to ensure a balanced representation of gender and to capture a wide range of perspectives regarding workplace friendships. During the coding of the qualitative data, each teacher was given a code name. Female teachers were designated as K1, K2, K3, and so on, while male teachers were defined as E1, E2, E3, and so on, using sequential numbers.

Data Collection Tools

Data collection tools were organized under two separate headings: quantitative instruments and the qualitative interview form.

Quantitative Instruments

In the quantitative phase, data were collected using two scales. The first tool is the 'Social Network Tendencies Scale,' originally developed by Cohen et al. (2011) and adapted into Turkish by Er (2017), who reported a Cronbach's alpha reliability coefficient of .84. This 5-point Likert-type scale (ranging from 1='Strongly Disagree' to 5='Strongly Agree') consists of 12 items gathered under three dimensions: *liking to connect*, *belief in having the right relationships*, and *assessing relationships*. A sample item from the scale is: 'I regularly evaluate my relationships with my friends at this school'. For the present sample, the Cronbach's alpha reliability coefficient of the scale was calculated as (.79).

The second tool is the 'Workplace Friendship Scale,' developed by Nielsen et al. (2000) and adapted by Şahinbaş and Erigüç (2019), who reported a Cronbach's alpha reliability coefficient of .94. This instrument includes 12 items rated on a 5-point Likert scale. It comprises two dimensions: *friendship opportunity* and *friendship value*. An example item includes: 'I get the chance to get to know my coworkers'. The internal consistency reliability coefficient (Cronbach's alpha) for this study was found to be (.80).

Qualitative Instrument

For the qualitative component, a semi-structured interview form titled "Social Networks at School and Workplace Friendship" was designed by the researchers. The form consists of six open-ended questions aimed at exploring teachers' lived experiences regarding these phenomena. To ensure content validity, the draft questions were reviewed by two experts in educational sciences holding doctoral degrees. Subsequently, a pilot study was conducted with one male and one female teacher to verify the clarity and feasibility of the questions. Based on the pilot results, the questions were found to be clear and understandable.

Data Collection Process

The measurement tool in the quantitative part of the study was sent to teachers online via Google Forms. The qualitative data for this study were gathered through interviews with teachers. Initially, a semi-structured interview form was created online and distributed to participants via Google Forms. Based on the responses provided by the participants on the form, the researchers conducted telephone interviews to gather additional information. Prior to these calls, additional verbal consent was explicitly obtained from the participants regarding the interview process. During these interviews, participants were asked to elaborate on the views they had presented in the form. The

interviews were not audio-recorded to ensure that participants felt more comfortable and could express their opinions freely without the pressure of a recording device. Instead, the simultaneous note-taking method was deliberately chosen to capture key points immediately while maintaining a natural conversation flow.

Data Analysis

Quantitative Data Analysis

Quantitative data in the study were processed through SPSS 20 statistical software. First, normality tests were performed on the social network tendency and workplace friendship variables, and skewness and kurtosis values were examined. In the initial analyses, it was observed that the workplace friendship variable did not follow a normal distribution, and outliers were detected. Fourteen outliers outside the -2.5 to +2.5 Z-score range were removed from the dataset; subsequently, it was determined that the skewness and kurtosis values of both variables fell within the ± 1 range, and the conditions for normal distribution were met.

Based on these normality results, parametric tests were primarily employed. Independent Samples t-tests were conducted for two-group comparisons (e.g., gender, marital status), and One-Way Analysis of Variance (ANOVA) was used for variables with three or more categories (e.g., age, seniority). Although multivariate normality tests (e.g., Mardia's test) were not conducted, the achievement of univariate normality was deemed sufficient as the primary analyses (t-tests, ANOVA, Regression) were univariate in nature rather than multivariate. Prior to these analyses, Levene's test was performed to check the assumption of homogeneity of variances.

However, regarding the 'School Type' variable, non-parametric tests (Kruskal-Wallis H and Mann-Whitney U) were employed instead of parametric tests. This decision was made because the assumption of homogeneity of variances was violated due to highly unbalanced sample sizes across school types (ranging from $n=16$ to $n=135$), necessitating a more robust approach for these specific comparisons. For the interpretation of the means, the group width appropriate for the 5-point Likert scale was calculated as $4/5 = 0.80$. The evaluation ranges were determined as follows: 1.00–1.79 'very low'; 1.80–2.59 'low'; 2.60–3.39 'medium'; 3.40–4.19 'high'; and 4.20–5.00 'very high'.

Qualitative Data Analysis

The study's qualitative data were analyzed using the content analysis method via MAXQDA 20 software. Unlike descriptive analysis, which summarizes data based on predetermined themes, content analysis allows for the discovery of new themes and patterns directly from the participants' expressions (Creswell, 2013). In this context, an inductive approach was adopted. The analysis process followed four distinct stages:

- *Immersion*: Repeated reading of the raw data to gain familiarity with the participants' expressions.
- *Coding*: Generating initial codes from significant statements found in the transcripts.
- *Categorization*: Grouping related codes into meaningful categories based on similarities.

- *Theme Generation:* Deriving overarching themes to interpret the underlying meanings of teachers' experiences comprehensively.

Validity, Reliability, and Ethics

A multi-layered approach has been adopted to ensure rigor. Quantitative reliability has been verified using Cronbach's Alpha coefficients, as detailed in the “Data Collection Tools” section. For the qualitative component, two independent researchers coded the data separately. Inter-coder reliability was calculated as 79% using the Miles and Huberman (1994) formula [$\text{Reliability} = \frac{\text{Agreement}}{\text{Agreement} + \text{Disagreement}} \times 100$]. Since rates above 70% are generally considered acceptable for exploratory studies, this rate indicates a consistent coding structure. To resolve the remaining inconsistencies (21%), the researchers held a consensus meeting. During this session, disputed codes were re-examined against the raw data, and a final decision was reached through discussion and mutual agreement.

Regarding qualitative validity (transferability), the “detailed descriptions” of the participants and the vocational school context presented in the “Participants” section allow readers to assess the applicability of the findings to similar contexts.

Ethical Considerations

Throughout the research process, ethical principles were strictly adhered to. The necessary legal permissions and ethical approval were obtained from the Aydın Adnan Menderes University Rectorate Education Research Ethics Committee (Date: 16.10.2024, Decision No: X, Number: E-84982664-604.01-628044). Furthermore, participation was voluntary; informed consent was obtained from all teachers, and they were assured that their personal information and responses would remain confidential and used solely for scientific purposes.

Results

The findings of the mixed-methods study are presented in two sections. The study presents the quantitative findings first, followed by the qualitative findings. These findings are discussed in detail in the discussion and conclusion sections.

Quantitative Findings

The study examined teachers' social networking tendencies and perceptions of workplace friendship at a general level and in terms of dimensions. Subsequently, teachers' social networking tendencies and workplace friendships were examined in relation to demographic variables. Finally, the relationship between these two variables was calculated, and the analysis results were presented.

Table 2

Descriptive Statistics Regarding Teachers' Social Networking Tendencies and Workplace Friendship Dimensions

Dimensions	n	$\bar{X}$	SD	Sorting
Liking to connect	329	4.19	.33	1
Belief in having the right relationships		4.07	.43	2
Assessing relationships		3.95	.54	3
General social network tendency		4.07	.33	
Opportunity to build friendships	329	3.99	.35	1
Friendship value		3.96	.36	2
General workplace friendship		3.98	.28	

The table indicates that teachers exhibit a high level of general social networking tendency ($M = 4.07$, $SD = .33$). Considering the average scores obtained from the dimensions of the scale, it is seen that teachers have the highest tendency for *liking to connect* ($M = 4.19$, $SD = .33$) followed by *belief in having the right relationships* ($M = 4.07$, $SD = .43$) and *assessing relationships* ($M = 3.95$, $SD = .54$). Furthermore, teachers' perceptions of workplace friendship ($M = 3.98$, $SD = .28$), as well as the dimensions of *friendship opportunity* ($M = 3.99$, $SD = .35$) and *friendship value* ($M = 3.96$, $SD = .36$), were found to be at a high level.

Examination of Teachers' Social Networking Tendencies and Perceptions of Workplace Friendships According to Demographic Variables

This research examined teachers' perceptions of social network tendencies and workplace friendships to gender, age, years of service at the school, professional seniority, and the type of school.

Table 3

Examination of Teachers' Social Network Tendency and Workplace Friendship Levels According to the Gender Variable

	Groups	N	$\bar{x}$	SD	df	t	p
Social network tendency	Male	169	3.98	.30	327	-5.281	.000
	Female	160	4.16	.33			
Workplace friendship	Male	169	3.93	.24	327	-3.321	.001
	Female	160	4.03	.31			

Analysis revealed significant gender differences in both social network tendency [$t(327) = -5.28$, $p < .05$] and workplace friendship perception [$t(327) = -3.32$, $p < .05$], with female teachers scoring significantly higher than males (Table 3). Workplace friendship levels categorized by teachers' age groups are displayed in Table 4.

Table 4

Examination of Teachers' Workplace Friendship Levels According to the Age Variable

Dimensions	Years	n	$\bar{X}$	SD	df	F	p	η^2	Significant difference
Opportunity to build friendships	a. 29-39 years	66	3.93	.45	2; 326	2.36	.096	-	-
	b. 40-50 years	162	3.97	.32					
	c. 51 years and over	101	4.05	.32					
Friendship value	a. 29-39 years	66	3.93	.36	2; 326	4.22	.016	.03	c>b
	b. 40-50 years	162	3.93	.37					
	c. 51 years and over	101	4.05	.33					
General workplace friendship	a. 29-39 years	66	3.93	.32	2; 326	5.05	.007	.03	c>a
	b. 40-50 years	162	3.95	.27					
	c. 51 years and over	101	4.06	.26					

Prior to the analysis regarding the age variable, the assumption of homogeneity of variances was checked and confirmed via Levene's test ($p > .05$). The ANOVA results indicated that teachers' perceptions of general workplace friendships differed significantly according to age [$F(2, 326) = 5.05, p < .05$]. To identify the specific groups where this difference emerged, the Scheffé post-hoc test was employed. This method was selected due to its robustness in handling unequal sample sizes and controlling Type I error rates.

Post-hoc comparisons revealed a statistically significant difference between teachers aged 51 and over ($M = 4.05$) and those aged 29–39 ($M = 3.93$, 95% CI [.01, .22]), as well as between teachers aged 51 and over ($M = 4.05$) and those aged 40–50 ($M = 3.95$, 95% CI [.01, .19]). Regarding specific dimensions, a significant difference was observed in *friendship value* between teachers aged 51 and over ($M = 4.05$) and those aged 40–50 ($M = 3.93$). The calculated effect size ($\eta^2 = .03$) indicates a small effect (Cohen, 1988).

No statistically significant differences were identified in teachers' general social networking tendencies or workplace friendship perceptions based on length of service at the school or professional seniority ($p > .05$). However, Kruskal-Wallis H test results showed that teachers' general social network tendency [$\chi^2(2) = 101.57, p < .05$] and workplace friendship perception [$\chi^2(2) = 97.65, p < .05$] varied significantly depending on the type of school in which they are employed (Table 5).

Table 5

Examination of Teachers' Social Network Tendency and Workplace Friendship Levels According to the School Type Variable

	School type	n	$\bar{X}$	df	χ^2	p	Significant difference
General social network tendency	a. Science High School	28	121.68	5	101.57	.000	f>a-b-d-e
	b. Anatolian High School	108	156.77				b>d-e
	c. Social Sciences High School	16	179.91				a>d-e
	d. Fine Arts High School	22	32.55				c>d
	e. Imam Hatip High School	20	78.63				e>c
	f. Vocational High School	135	213.18				d>e
General workplace friendship	a. Science High School	28	93.73	5	97.65	.000	f> a-b-c-d-e
	b. Anatolian High School	108	146.15				b>a-d-e
	c. Social Sciences High School	16	154.88				c>a-d
	d. Fine Arts High School	22	70.41				
	e. Imam Hatip High School	20	102.98				
	f. Vocational High School	135	220.66				

According to the research findings, teachers' social networking tendencies and perceptions of workplace friendship differ significantly depending on the type of school they work at ($p < .05$). As a result of pairwise comparisons using the Mann-Whitney U test, it was determined that this difference was particularly in favor of teachers working at vocational high schools. The social networking tendencies of vocational high school teachers; Science High Schools ($U = 735, p < .05$), Anatolian High Schools ($U=4466, p < .05$), Fine Arts High Schools ($U = 22, p < .05$), and Imam Hatip High Schools ($U=316, p < .05$). Additionally, Anatolian High School teachers have a higher social network tendency than teachers working at Fine Arts High Schools ($U = 219, p < .05$) and Imam Hatip High Schools ($U = 518, p < .05$). Science High School teachers also exhibit a higher social networking tendency compared to their colleagues working at Fine Arts High Schools ($U = 71, p < .05$) and Imam Hatip High Schools ($U = 161, p < .05$). In this context, social networking tendency appears to be higher in all school types except Fine Arts and Imam Hatip High Schools.

Similarly, in terms of workplace friendship perception, vocational high school teachers; Science High Schools ($U = 474, p < .05$), Anatolian High Schools ($U = 3884, p < .05$), Fine Arts High Schools ($U = 218, p < .05$), Social Sciences High Schools ($U = 622, p < .05$), and Imam Hatip High Schools ($U = 381, p < .05$). In addition, Anatolian High School teachers' perception of workplace camaraderie is higher than that of Science High School ($U = 995, p < .05$), Fine Arts ($U = 590, p < .05$), and Imam Hatip High School ($U = 776, p < .05$) teachers. It was also observed that the perceptions of Social Sciences High School teachers are higher than those of Science High School ($U = 131, p < .05$) and Fine Arts High School ($U = 79, p < .05$) teachers. In general, the

workplace camaraderie perceptions of teachers working in Fine Arts and Imam Hatip High Schools are lower than those of other school types.

Examining the Relationship between Teachers' Social Network Tendency and Perception of Workplace Friendship

The simple linear correlation procedure conducted to determine the existence of any is a relationship between teachers' social network tendency and workplace friendship shows that there is a positive and significant relationship between social network tendency and workplace friendship ($r = .549$, $p < .05$). Table 6 presents the correlation results for the relationship between teachers' social network tendencies and their workplace friendship levels.

Table 6

Examination of the Relationship Between Teachers' Network Tendencies and Workplace Friendship Levels

	İD	BK	DİK	GSOS	AKF	AD	GIYA
İD	1						
BK	.339**	1					
DİK	.306**	.383**	1				
GSOS	.802**	.691**	.738**	1			
AKF	.349**	.245**	.281**	.399**	1		
AD	.405**	.281**	.346**	.471**	.258**	1	
GIYA	.476**	.332**	.395**	.549**	.791**	.795**	1

Note 1: The names of the scale dimensions are abbreviated in the table. In this context, IS: Relationship evaluation; IC: Willingness to connect; DİK: Believing that they have established the right relationship; GSOS: General social network tendency; AKF: Friendship opportunity; AD: Friendship value; GIYA: General perception of workplace friendship.

Note 2: p value is significant at the .05* level and .01** level.

As a result of the simple linear regression analysis conducted to reveal how teachers' social network tendency predicts their perception of workplace friendship, a significant positive relationship was observed between social network tendency and perception of workplace friendship ($R = .549$, $R^2 = .299$), and it was revealed that social network tendency was a significant predictor of workplace friendship ($F(1, 327) = 140.78$, $p < .05$). Social network tendency explains 30% of the variation in workplace friendship. The significance test of the coefficient of the primary predictor variable in the regression equation ($B = 1.55$) also shows that social network tendency is a significant predictor ($p < .05$).

Qualitative Findings

The findings obtained from teachers' views on social network tendency and workplace friendships were categorized under four themes. These include friendship preferences, friend groups, teachers, and professional development. Within the scope of the research, each finding is supported by citing the participants' views.

Table 7

Views on Friendship Preference

Theme	Categories	Participant view
Friendship preference	Personal characteristics	“Of course, I pay attention to personal traits... being a good person and honest is important. The point is to get along well.” (K1) “I value being respectful, empathetic, and sensitive to others.” (K8) “Status matters in business life, but friendships are shaped more by character.” (E4)
	Desired traits	Understanding, respectful, empathetic, good communicator, helpful, sincere, positive, fair, conscientious, hardworking, cooperative, reliable, honest, selfless, instructive
	Other considerations	Shared worldview, emotional support, openness to learning.
	Status and role in school	“He must be a good person, but also have status—such as a school administrator or someone involved in projects. This kind of person contributes to me and helps me grow.” (E7)
	Position-related traits	Holding administrative roles, being involved in projects, having influence in the school.

Table 7 summarizes the key factors influencing teachers' preferences for workplace friendships. The vast majority of participants emphasized that personal characteristics are decisive in choosing friends. In this context, it is seen that human values such as understanding, empathy, honesty, communication skills, reliability, and dedication are prioritized. This situation shows that the friendships teachers establish in the workplace are based not only on professional but also on emotional and ethical foundations.

On the other hand, some participants stated that they consider the status of the other person, their influence within the school, or their participation in projects to be important factors. Illustrating this pragmatic perspective, one participant (E7) remarkably stated: *“He must be a good person, but also have status—such as a school administrator... This kind of person contributes to me and helps me grow.”* This finding reveals that workplace friendships can sometimes have an instrumental dimension. In conclusion, teachers' friendship preferences are shaped by both emotional closeness and professional contribution.

Table 8
Views on the Friends Group

Theme	Category	Participant view
Group of friends	Close relationships	"...We've been working together for so long that we're like siblings now. We share both our school and personal lives." (K2)
		"...We share social and cultural topics with our friends. Sometimes we have enjoyable conversations about sports." (E1)
		Feeling like family
		Social and cultural sharing
		Getting together for extracurricular activities
		Preferring to keep a distance
	Support mechanism	"...We support each other when there are family problems, financial difficulties, or problems at school." (K11)
		Support for school-related problems
		Solidarity in economic difficulties
		Moral support for family and personal problems
	Position in the group	"...In our group, there are generally people who are older and more experienced than me. I am more of a member. But I can be a leader in areas where I am competent." (E3)
		I am an ordinary group member
		I sometimes take on a leadership role
		Group members are on an equal footing

Table 8 presents teachers' views on their work friendships. While some participants stated that they prefer to be distant from their colleagues, other teachers defined their friendship group as a "family". Expressing this deep bond, one teacher (K2) remarked: *"We've been working together for so long that we're like siblings now. We share both our school and personal lives."* They noted that this group comes together for social and cultural sharing in out-of-school activities. This shows that friendship relationships are experienced at different intensities among individuals.

It is also noteworthy that friend groups are a source of support. Participants stated that they received moral support from their friend groups in both professional (school-related problems) and personal (economic, family) problems. This support mechanism reveals that a social bond based on trust is established among teachers.

Regarding their position in the group, some participants stated that they were ordinary members. In contrast, others defined themselves as leaders. Illustrating the fluidity of these roles, participant E3 noted: *"In our group... I am more of a member. But I can be a leader in areas where I am competent."* This situation suggests that hierarchical structures and equality-based relationships can coexist within workplace friendship groups. In the formation of workplace friendships, teachers' perspectives on colleagues who access information before others and establish good relations with school administrators are important (Table 9).

Table 9
Views about Teachers

Category	Sub-category	Participant view
Teachers who access information quickly	Personal qualities (researcher, open to innovation, loves their profession, proficient in technology)	“...I see teachers like this in my school. People who read, research, and work hard; I have a lot of respect for them.” (E1)
	Positive effects (quick access to information, development, communication, advantage in tasks, access to resources)	“...I can hear about the decisions made by the administration early on and act accordingly. This makes it much easier to access information.” (K11)
	Negative effects (grouping, conflict, stress, inequality, low morale)	“...Some teachers hear everything before us and make their plans. We are always the last to know. This can be frustrating.” (K9)
Teachers who have good relationships with school administrators	Communication and cooperation (communication with administration, problem solving, self-expression, cooperative environment)	“...Being friends with someone who gets along well with the school principal and is liked by those around them has a positive effect on how I am perceived at school.” (E6)
	Personal and professional development (access to information, understanding school dynamics, ethical development)	“...Being close to someone like this allows me to be informed about what is happening at school early on, giving me the opportunity to develop myself.” (K6)
	Adaptation and socialization (adapting to the environment, circle of friends, comfortable working environment, acceptance)	“...Being friends with someone who everyone likes has made it easier for me to communicate with other teachers.” (K5)
	Other advantages (motivation, reduced workload, positive image)	

According to Table 9, participants described teachers who were quick to access information... as individuals who stood out professionally. The positive effects of such teachers, such as their ability to access information quickly and strengthen internal communication, were emphasized. For instance, highlighting this advantage, participant K11 noted: *“I can hear about the decisions made by the administration early on... This makes it much easier to access information.”* However, it was also noted that teachers with these qualities could lead to some negative outcomes. In particular, negative effects such as cliques, conflicts, and inequality were highlighted. Expressing this frustration from a counter-perspective, teacher K9 stated: *“Some teachers hear everything before us... We are always the last to know. This can be frustrating.”* This suggests that differences in access to information can cause tensions in the workplace.

Additionally, the participants noted that teachers who have a good relationship with the school principal play a crucial role. These teachers have several advantages in terms of personal development and work environment comfort. As participant E6 remarked regarding this strategic benefit: *"Being friends with someone who gets along well with the school principal... has a positive effect on how I am perceived at school."* These findings indicate that both interpersonal relationships and individual characteristics significantly influence the nature of workplace friendship.

Table 10

Views on the Contribution of Relationships to Professional Development

Theme	Sub-themes	Participant view
Professional development	Teaching process	"...Exchanging ideas with my colleagues helps me learn new methods. This helps me improve my teaching techniques and strengthen my classroom management skills." (K15)
		Improvement of teaching methods Effective classroom management Sharing materials Exchanging information about students
	Progress and experience	"...It promotes development because knowledge grows when it is shared. After all, there is something called peer learning. We share with our friends and learn from each other." (E7)
		Development through feedback Gaining experience Seminar/conference support Gaining new perspectives
	Other contributions	Increasing motivation to work Contributing to problem-solving

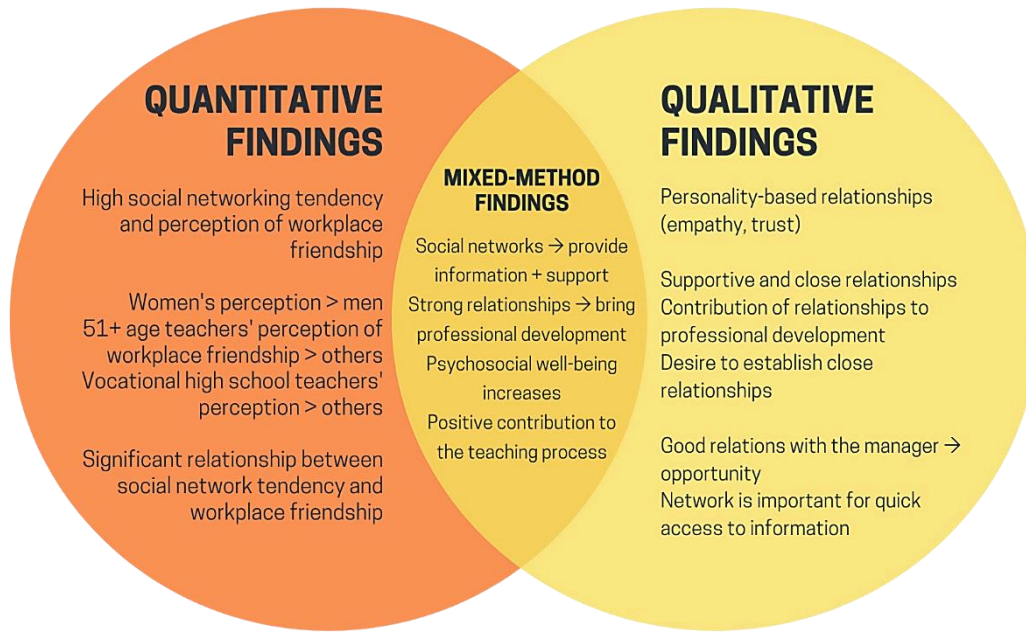
According to Table 10, participants stated that workplace friendships appeared to make significant contributions not only to social but also to professional learning processes. In particular, academic-oriented gains such as improving teaching techniques and increasing classroom management skills stand out. For instance, highlighting these practical benefits, participant K15 noted: *"Exchanging ideas with my colleagues helps me learn new methods. This helps me improve my teaching techniques and strengthen my classroom management skills."*

These findings suggest that coworking partnerships are closely related to informal learning processes. In addition, teachers' professional competencies were reported to improve through concrete practices, such as sharing materials and exchanging ideas. Reflecting this collaborative mindset, another participant (E7) emphasized the value of peer interaction: *"It promotes development because knowledge grows when it is shared. After all, there is something called peer learning."*

Participants further stated that these relationships not only provided them with professional knowledge but also increased their motivation. Emphasizing that their development became sustainable with feedback, participants indicated that positive relationships played a facilitating role in solving problems. Collectively, these findings reveal that social relationships play a significant role in professional development. An integrated evaluation of the findings obtained through the mixed-methods approach revealed that the quantitative and qualitative results were mutually reinforcing (Figure 1).

Figure 1

Name of the Figure



As seen in the figure, the study concluded that teachers have high social networking tendencies and desire to establish social relationships with their colleagues at work. The study's quantitative results demonstrated that teachers exhibited high levels of both social networking tendencies and perceptions of workplace friendships. In particular, the desire for connection and opportunities for friendship were identified as the most prominent dimensions. This finding aligns with the qualitative results; teachers emphasized that they tend to establish close relationships with their colleagues, attaching importance to personality traits (such as empathy, trust, and respect) rather than status in these relationships, and that these ties contribute positively to their professional development. In addition, quantitative data revealed that female teachers' social network tendencies and perceptions of workplace friendships were higher. In contrast, female participants emphasized the importance of social support and sharing more in qualitative interviews.

The high levels of social network tendencies and workplace friendship of vocational high school teachers are also supported by qualitative data, as these teachers stated that they developed more collaborative relationships during the teaching process. On the other hand, teachers' statements that their positions in social networks are decisive in terms of access to information and that people with strong relationships facilitate communication within the school are consistent with the quantitative results, which show that social networking tendencies significantly predict workplace

friendships. In conclusion, when the findings obtained through the mixed-method approach are combined, it becomes evident that teachers with strong social networks offer significant advantages in both psychosocial and professional aspects.

Discussion and Conclusion

The aim of this study was to examine teachers' workplace friendships and social network tendencies using a mixed-methods design. The primary conclusion drawn from the analysis is that while teachers generally maintain strong, positive social bonds based on trust and support, these networks are significantly stratified by access to information and proximity to administrative power. This finding serves as a modern validation of the Human Relations Approach (Neo-classical management theory) (Mayo, 1933; Roethlisberger & Dickson, 1939), which posited nearly a century ago that social bonds are central to organizational life.

Consistent with this historical perspective, the quantitative results indicated that teachers generally hold positive attitudes toward workplace friendships. However, when these relationships are mapped onto the organizational structure, it becomes clear that social networks are not randomly distributed but are shaped by power dynamics. In schools, stronger social networks are observed around teachers who have quick access to information and establish close relationships with the administration. In this context, social capital not only provides individual advantages but also influences the learning opportunities of other teachers (Putnam, 2000).

According to participant views, teachers who have early access to information and strong relationships with administrators hold a central position in the social power structures within schools. The tendency for teachers to form friendships with colleagues who possess such qualities can be explained by social capital theory. Social capital theory emphasizes that the informal relationships individuals establish for support, assistance, and access to information form the basis of social capital (Lin et al., 2017). In this context, teachers' social capital supports professional development, encourages knowledge sharing, and enhances creative teaching practices (Abbasi et al., 2021; Shi et al., 2022). Furthermore, social capital facilitates teachers' ability to cope with their workload and strengthens peer support and collaboration toward shared goals (Jiang et al., 2016; Wolgast & Fisher, 2017). Furthermore, teachers' active participation in school reforms and their access to resources and expertise also increase through social capital, which has an indirect positive effect on student learning outcomes (Penuel et al., 2009; Schaaf, 2017). Therefore, teachers' strengthening their position within the school through access to information and relationships is a reflection of social capital. In addition to these structural and capital-based explanations, individual differences also play a pivotal role in shaping social networks. Literature suggests that personality traits, particularly extroversion and neuroticism, significantly influence networking behaviors (Kalish & Robins, 2006; Klein et al., 2004). While extroverted teachers may be more proactive in initiating workplace friendships and positioning themselves centrally in the network, those with higher neuroticism might perceive social barriers more acutely. Therefore, the network tendencies observed in this study should be interpreted as an interplay between organizational structure and individual personality traits.

Research findings indicate that relationships between teachers appear to be positively associated with their professional development. Qualitative data suggest that

participants perceive this interaction as occurring primarily through instructional methods, material sharing, and motivational support. This demonstrates that social relationships between teachers carry not only emotional but also cognitive and professional dimensions. When evaluated within the framework of Bandura's (1977) social learning theory, it is understood that individuals continue their learning processes through observation and interaction. By observing their colleagues' classroom practices, strategies, and attitudes, teachers learn new methods and can improve their teaching approaches (Legg, 2023; Manik et al., 2022; Mintzes et al., 2013). In the study, teachers stated that sharing with colleagues contributed to their development of new techniques, the production of materials, and increased professional motivation. In this context, professional learning communities established in schools support teachers' learning both directly (through their own experiences) and indirectly (through observing others) (Devi et al., 2017; Greener et al., 2015; Mintzes et al., 2013). In line with social learning theory, teachers' interactions with their colleagues play an important role in the development of knowledge and skills.

The fact that teachers form friendship groups that can be described as “family-like” structures indicates the existence of a strong culture of solidarity and emotional attachment in the school environment. This finding is consistent with Tschannen-Moran and Hoy's (2000) view that trust among teachers promotes open communication and cooperation, thereby creating a positive school climate. In this context, “family-like” friendship groups established by teachers can be seen as an indicator of a trust-based school climate and a culture of mutual support. However, it is also worth noting that these groups can sometimes create negative outcomes supported by the literature, such as gossip, cliques, and information asymmetry (Ellwardt et al., 2012; Grosser et al., 2010). These exclusionary structures can threaten professional equality. In particular, the fact that teachers close to the school administrator have greater access to resources than others is a situation that warrants questioning in the context of organizational justice. Such information asymmetry typically consolidates power within specific cliques, leaving other teachers on the periphery. The unfair distribution of resources can lead to conflict among teachers, loss of motivation, and imbalances in student achievement (Cheek & Lindsey, 1986; Lochmiller & Pawlicki, 2018). Furthermore, this situation undermines cooperation and has a negative impact on the school climate. The unequal distribution of resources in schools can reduce teachers' motivation and job satisfaction, ultimately affecting students' learning experiences negatively (Hsieh et al., 2024).

Positive relationships between school principals and teachers shape the school climate by increasing job satisfaction and organizational commitment (Price, 2012). However, privileges granted to certain teachers by the administration can lead to inconsistent application of rules and perceptions of favoritism. This situation undermines trust relationships by fostering a sense of injustice among teachers and students (Aviram & Shoshana, 2024; Calarco, 2019). Favoritism challenges teachers' professional ethical boundaries and creates conflicts in their professional identities (Aviram & Shoshana, 2024; Variyan, 2019). Teachers may develop negative emotional responses when faced with factors such as unfair treatment, colleague competition, and work-life imbalance (Chen, 2016). Such practices can also have destructive effects on teachers' job satisfaction (Huang, 2020), performance, and motivation (Hermanto &

Srimulyani, 2022; Gül Öztürk & Koşar, 2021). Perceptions of injustice undermine teachers' trust in management (Hoy & Tarter, 2004), leading teachers to develop negative attitudes such as organizational silence and cynicism (Tan, 2014). Therefore, preventing favoritism and adopting fair management practices in schools is crucial for establishing a trustworthy environment and maintaining teacher motivation.

As a result, the generalizability of quantitative data combined with the in-depth explanatory power of qualitative data revealed the multidimensional and complex nature of social relationships among teachers. The study demonstrated that workplace friendships are not only based on personal preferences and emotional ties but are also nourished by structural factors such as status, knowledge sharing, and managerial relationships. Beyond these general findings, this study offers specific contributions to the literature in three key context-specific areas: (1) Conducted in the Efeler district of Aydın Province, this research provides unique insights into the social network dynamics of teachers within a specific socio-cultural educational setting, offering a comparative baseline for future regional studies. (2) By analyzing differences across various school types, the study highlights how organizational structures shape social capital and friendship formation. (3) The findings regarding the 51+ age group reveal distinctive patterns, suggesting that senior teachers maintain stronger and more value-oriented networks compared to their younger counterparts.

Limitations and Future Directions

This study has several limitations that should be considered when interpreting the results. Since this is a cross-sectional study, it provides a snapshot of social networks at a specific moment and does not reflect how relationships evolve over time. Consequently, causal inferences regarding the impact of friendships cannot be drawn. The research was conducted with teachers working in the Efeler district, which may limit the generalizability of the findings to other regions or cultures with different school climates. As with many studies relying on self-reported scales, there is a possibility of social desirability bias, where participants might have portrayed their friendships in a more positive light than they actually are.

The quantitative data in this study are inherently nested (teachers clustered within schools). While the current analysis employed standard regression and ANOVA techniques, we acknowledge that this approach may not fully account for the intraclass correlation associated with clustering. Therefore, for future research, we strongly recommend the use of Multilevel Modeling (HLM/MLM) to partition variance across individual and school levels and obtain unbiased effect estimates. Furthermore, future studies could employ longitudinal designs to observe how these networks evolve over time and utilize Social Network Analysis (SNA) visualization techniques (sociograms) to map the structural patterns of teacher relationships more concretely.

Implications for Practice

Based on the outcomes of this research, the following recommendations are proposed for school administrators and policymakers: (1) To mitigate the negative effects of cliques and information asymmetry, school administrators should adopt fair management practices that ensure equitable access to resources and information, thereby maintaining a balanced power structure within the school. (2) Instead of

unstructured social events, school management should structure teacher solidarity-focused Professional Learning Communities (PLCs). These structures can transform casual friendships into professional development networks. (3) In-service training programs focused on "developing social capital" should be organized for teachers to raise awareness about how networking behaviors can contribute to their professional growth and the school's institutional capacity.

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Statement of Responsibility

YYÖ: Resources, Conceptualization, Investigation, Methodology, Software, Writing – Original Draft. **BA:** Data Curation, Validation, Writing – Review & Editing, Supervision. All authors have read and agreed to the published version of the manuscript. The first author contributed 70% to the study, and the second author contributed 30%.

Conflicts of Interest

There is no conflict of interest in this study.

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