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The Link Between the Need for Renewal and Shifting to a Learning Organization in Turkish Primary Schools*

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Abstract

The study aims to examine the relationship between the need for innovation in schools and their ability to become learning organizations. The study's sample consists of 506 teachers working in primary schools in Kahramanmaraş province during the 2014-2015 academic year. Two different data collection tools were used in the study. The first one is the "Learning Organization Scale". This scale was developed by Subaş in 2010. The other scale is the "Need for Renewal Scale". This scale was developed by Inandı (1999) with 53 questions and later re-evaluated by Beycioglu (2004), resulting in a 40-item. The research data were analyzed with SPSS 23.0. The study is a quantitative study suitable for the relational screening model. When the research results are examined, it is seen that the need for innovation is "quite" high in all sub-dimensions. The relationship between being a learning organization and the need for renewal was negative and did not differ significantly across all sub-dimensions. The research is essential for determining the learning organization levels of institutions that need renewal and for revealing those levels.

Introduction

In the contemporary era, the rapid convergence of technological and scientific breakthroughs is fundamentally reshaping not only production paradigms but the very fabric of social existence and future expectations. The advent of Industry 4.0 and the broader digital transformation have catalyzed a significant acceleration in social Dynamics (Dao et al., 2023; Michna & Kmieciak, 2020). This shift necessitates a transition from traditional, rigid

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hierarchical organizations toward more flexible, agile, and decentralized structures capable of rapid adaptation (Chigbu et al., 2023; Moraes et al., 2023). Technology has transcended its historical role as a mere tool for efficiency; it now serves as a primary architect of social formations, communication modalities, and institutional operations (Castells, 2008). Within this context, education emerges as one of the sectors most profoundly impacted (Tikhonova & Raitskaya, 2023). As the "engine room" of human capital, schools are no longer static repositories of knowledge but are becoming dynamic nodes within a global information network.

Educational management science is currently undergoing a rapid evolution to meet the complex demands of the information society. Schools must adapt not only their physical infrastructure -integrating AI, IoT, and digital platforms -but more importantly, their mental models and organizational philosophies (Himmetoglu et al., 2021; Tikhonova & Raitskaya, 2023). As Meydan and Durmaz (2021) observe, the proactive stance of school leadership and staff's intrinsic motivation toward innovation are the primary determinants of institutional success.

In a global landscape where competition is increasingly framed as a “knowledge war,” the velocity at which an institution acquires, processes, and applies new information dictates its survival. Celik (2012) posits that for organizations to remain competitive in such volatile environments, they must engage in continuous internal scrutiny and process optimization. Schools, functioning as open systems, bear the responsibility of filtering external signals, integrating global trends, and responding to societal shifts. (Polyakova, 2020). Their social legitimacy is no longer guaranteed by tradition but depends on their ability to achieve strategic goals and iteratively update their mission to remain relevant.

The core mission of educational institutions, cultivating qualified, future-ready individuals, is predicated on continuous, multidimensional communication with their environment (Himmetoglu et al., 2021). However, the path to innovation is often obstructed by organizational inertia and entrenched conflicts of interest. Because change inherently brings uncertainty, it frequently triggers systemic resistance.

To navigate this, visionary leadership is indispensable. Leaders must do more than "approve" of innovation; they must actively identify internal bottlenecks, dismantle bureaucratic silos, and implement strategic measures to mitigate resistance (Celik, 1998; Kuguoglu & Kucuk, 2012; Supriadi et al., 2020; Ugurlu, 2017). A robust, innovative culture is one that: (i) views opposing viewpoints as diagnostic tools rather than threats. (ii) encourages staff to experiment creatively without the fear of punitive failure (Ozdemir, 2013) and (iii) fosters Inclusion: Ensures that every stakeholder feels a sense of ownership over the change process.

Ultimately, innovation cannot be sustained solely through top-down mandates. As Sisman (2018) emphasizes, the long-term viability of any development initiative rests on staff's positive attitudes and behavioral alignment. When renewal becomes routine rather than a disruption, schools become frontline agents of societal progress (Bass, 1998; Sezer et al., 2020; Yukl, 2008).

The quality of education is a multifaceted construct, shaped by the optimization of internal resources, the collective passion for renewal, and the seamless integration of technology (Gokdere et al., 2006; Kucuk & Cepni, 2005). While the relationship between "learning”- the fundamental engine of institutional growth - and "innovation" has been explored through various lenses (such as knowledge management, crisis capacity, and organizational health), a critical gap remains in the literature. Specifically, there is a lack of

empirical research that directly correlates the holistic "learning organization [LO]" framework with the specific "need for renewal [NFR]" within a statistical and institutional context. Many studies treat these as isolated variables rather than synergistic forces (Bal, 2011; Banoglu, 2009; Bilir & Arslan, 2016; Guclu & Turkuglu, 2003; Kilic, 2009; Yasar-Ugurlu & Kizildag, 2014). This study aims to bridge this gap by investigating how the specific dimensions of an LO influence and predict the institutional NFR. By quantifying these relationships, the findings are intended to provide a roadmap for policymakers and school administrators. The goal is to move beyond theoretical discussions and offer evidence-based strategies for change management, ensuring that schools do not merely survive the digital age but lead it.

Methods

This research aims to examine the relationship between teachers' organizational NFR and perceptions of becoming a LO in schools. In this context, the study used the relational survey model. This model encompasses research aimed at identifying the relationships between two different situations, events, or phenomena (Sengul Avsar, 2022).

Study Sample

The study sample includes teachers from official middle schools within the centers and districts under the Kahramanmaraş Provincial Directorate of National Education during the 2014-2015 academic year. A total of 527 teachers participated, and data were collected via both print and mail formats. After excluding 21 scales for failing to follow instructions, 506 valid responses remained for analysis. As shown in Table 1, which presents demographic details, the sample adequately represents variables such as gender, age, educational background, and professional experience.

Table 1
Descriptive Information of the Sample

Variables	*Category*	*N*	*%*
Gender	Female	233	46,0
	Male	273	54,0
Seniority	0-5 years	156	30,8
	6-10 years	145	28,7
	11-15 years	90	17,8
	16-20 years	75	14,8
	21 and over	40	7,9
Graduated	Classroom Teaching	214	42,3
Program	Turkish Language Teaching	33	6,5
	Mathematics Teaching	30	5,9
	Social Studies Teaching	32	6,3
	Science Teaching	37	7,3
	English Language Teaching	30	5,9
	Technology and Art Courses (Design, Informatics, Music, Visual Arts) Teaching	17	3,4
	Religious Culture and Moral Education Teaching	14	2,8
	Preschool Teaching	22	4,3
	Guidance and Psychological Counseling	20	4,0
	Physical Education Teaching	14	2,8
	Other	43	8,5

Data Collection Tools

In the study, the Learning Organization Scale [LOS] and the Need for Renewal Scale [NFRS] were used.

The LOS was developed by Subaş in 2014 and was initially prepared as a draft with 92 items. Based on expert opinions, 43 items were removed, and the remaining 49 items were subjected to validity and reliability studies with feedback from 155 teachers. As a result of these studies, the scale was reduced to 30 items and comprised five factors, accounting for 59.2% of the total variance. Internal consistency reliability was assessed using Cronbach's alpha (0.91); the Guttman coefficient was 0.690, and the Spearman-Brown coefficient was 0.709. Additionally, regarding item discrimination, a significant difference was observed between the lower and upper groups' mean scores at the $p<.05$ level.

To determine the NFR, a 53-item scale developed by Inandi in 1999, with a reliability coefficient of r=0.92, was reevaluated in 2004 by Beycioglu through expert opinions, resulting in a reduction to 40 items from the original 53. This scale consists of five core dimensions covering organizational innovation needs, structure, purpose, democracy, and school-environment relations.

Data Analysis

In the initial stage of data analysis, we conducted normality tests on the sub-dimensions of the two measurement tools used in the study. For this purpose, the descriptive statistics, skewness, and kurtosis coefficients for each score are shown in Table 2. Table 2 indicates that all values lie between -1 and +1. According to Tabachnick and Fidell (2013), data are considered normally distributed if the skewness and kurtosis coefficients are within the range of -1.5 to +1.5. In this context, we used parametric tests in our analyses. We investigated the relationship between participants' ability to become an LO and their NFR by using the Pearson Product-Moment Correlation Coefficient. Additionally, we tested differences in LOS score acquisition across age groups using a one-way ANOVA. Furthermore, we applied an independent t-test and a Bonferroni test for the gender variable.

Table 2

Descriptive Information About Test Variables

Variables		*Min.*	*Max.*	*Mean*	*s*	*Skewness*	*Kurtosis*
Learning School Subdimensions	Personal Sovereignty	6	24	18.91	2.94	-.34	.44
	Mental Model	9	20	16.25	2.27	-.19	-.49
	Shared Vision	7	28	20.36	4.21	-.40	.58
	Working as a Team	8	32	23.89	4.84	-.41	.38
	Systems Thinking	4	16	12.73	1.97	-.25	.56
Need for Renewal Subdimensions	Organizational Structure	12	60	41.66	10.47	-.46	-.28
	Organizational Goal	11	55	40.70	8.49	-.59	.25
	Democracy	7	35	24.80	7.37	-.45	-.71
	School-Environment Relations	10	50	37.54	8.72	-.61	.04

Results

The relationship between teachers' ability to be a LO and the NFR was examined using the Pearson Product-Moment Correlation Coefficient. The correlation between the scores is presented in Table 3.

Table 3
The Correlation Between the Ability to Be a LO and the NFR

	1	2	3	4	5	6	7	8	9
1.Personal sovereignty[a]	1								
2. Mental models[a]	.56**	1							
3. Shared vision[a]	.37**	.37**	1						
4. Working as a team[a]	.34**	.33**	.71**	1					
5. Systems thinking[a]	.47**	.48**	.52**	.58**	1				
6. Organizational structure [b]	-.02	-.01	-.18**	-.20**	-.08	1			
7. Organizational goals[b]	.05	.06	-.08	-.14**	-.01	.79**	1		
8. Democracy[b]	.02	-.01	-.14**	-.19**	-.06	.68**	.71**	1	
9. School-environment relations[b]	.03	.03	-.13**	-.12**	-,02	.64**	.73**	.75**	1

*p<0.05 **p<.001 ; a=Sub-Dimension of LOS, b= Sub-Dimension of NFRS

Based on the Table 3 result, we found that the sub-dimension of the LOS, 'Working as a Team,' has a low-level, negatively significant relationship with the sub-dimensions of the NFRS, namely 'Organizational Structure' (r= -0.20), 'Organizational Goals' (r= -0.14), 'Democracy' (r= -0.19), and 'School-Environment Relations' (r= -0.12). Additionally, the sub-dimension of the LOS, 'Systems Thinking,' also shows low-level, negatively significant relationships with the sub-dimensions of the NFRS, namely 'Organizational Structure' (r= -0.08), 'Organizational Goals' (r= -0.01), 'Democracy' (r= -0.06), and 'School-Environment Relations' (r= -0.02).

In line with these results, we applied independent-samples t-tests and a one-way ANOVA to examine differences in scores on the need to become a LO and NFR, by gender and seniority status. Our findings are presented in Tables 4-7.

Table 4 presents the results of the independent t-test conducted to determine differences in scores for becoming an LO by gender in the sample.

Table 4
Differences in the Scores of Female and Male Teachers in Becoming a LO

	Variable	*Gender*	*N*	*Mean*	*s*	*df*	*t*	*Sig.*
Learning School Subdimensions	Personal Sovereignty	Female	233	19.14	2.71	504	1.674	.095
		Male	273	18.70	3.12			
	Mental Model	Female	233	16.19	2.30	504	-.55	.582
		Male	273	16.30	2.25			
	Shared Vision	Female	233	20.75	3.76	504	1.93	.054
		Male	273	20.03	4.54			
	Working as a Team	Female	233	24.35	4.54	504	1.98	.049
		Male	273	23.50	5.05			
	Systems Thinking	Female	233	13.03	1.82	504	3.16	.002
		Male	273	12.48	2.06			

Table 4 shows significant gender differences in the sub-dimensions 'Working as a Team' (t=1.98, p<.05) and 'System Thinking' (t=3.16, p<.05). Accordingly, in both sub-dimensions, the scores of women were higher than those of men. Table 5 presents the results of the One-Way ANOVA, which indicate differences in the LO Scores across seniority levels.

Table 5

Differences in Teachers' Scores for Becoming an LO According to Seniority

	Variable	*Factor*	*Sum of Squares*	*df*	*Mean Square*	*F*	*Sig.*
Learning School Subdimensions	Personal Sovereignty	Between groups	44.23	4	11.06	1.28	.277
		Within the group	4325.22	501	8.63		
		Total	4369.45	505			
	Mental Model	Between groups	35.84	4	8.96	1.75	.138
		Within the group	2566.79	501	5.12		
		Total	2602.63	505			
	Shared Vision	Between groups	353.85	4	88.46	5.16	.000
		Within the group	8590.97	501	17.15		
		Total	8944.82	505			
	Working as a Team	Between groups	307.15	4	76.79	3.34	.010
		Within the group	11517.09	501	22.99		
		Total	11824.24	505			
	Systems Thinking	Between groups	16.86	4	4.21	1.08	.364
		Within the group	1948.13	501	3.89		
		Total	1964.98	505			

Table 5 showed significant differences in the sub-factors of Shared Vision (F(4, 501)=5.16, p< .05) and Working as a Team (F(4, 501)=3.34, p< .05). No significant differences were found in the other sub-factors. The source of the difference was tested using the Bonferroni technique. Accordingly, teachers with 21 years or more of seniority scored significantly higher on the Shared Vision sub-factor (X=23.10±3.34) than those with 0-5 years (X=19.97±3.65), 6-10 years (X=20.32±4.17), 11-15 years (X=19.80±4.30), and 16-20 years (X=20.48±4.94). The difference in the Working as a Team sub-dimension is due to teachers with 21 years or more of seniority scoring significantly higher (X=25.70±4.46) than those with 11-15 years of seniority (X=22.56±4.91).

Table 6 presents the results of the independent t-test conducted to assess differences in opinions on the NFR by gender.

Table 6

Differences in the NFRS Scores of Female and Male Teachers

	Variable	*Gender*	*N*	*Mean*	*s*	*df*	*t*	*Sig.*
Subdimensions of the Need for Renewal	Organizational Structure	Female	233	39.55	10.61	504	-4.27	.000
		Male	273	43.47	10.02			
	Organizational Goal	Female	233	39.35	8.70	504	-3.35	.001
		Male	273	41.86	8.15			
	Democracy	Female	233	23.61	7.29	504	-3.40	.001
		Male	273	25.82	7.30			
	School-Environment Relations	Female	233	36.39	8.74	504	-2.76	.006
		Male	273	38.52	8.60			

Based on the data in Table 6, significant differences in gender scores were observed across all sub-factors of the NFRS. This difference favors male teachers on the sub-factors 'Organizational Structure' ($t = -4.27$, $p < .05$), 'Organizational Goal' ($t = -3.35$, $p < .05$), 'Democracy' ($t = -3.40$, $p < .05$), and 'School-Environment Relations' ($t = -2.76$, $p < .05$).

Table 7 presents the results of the One-Way ANOVA test examining differences in opinions on the NFRS by seniority.

Table 7

Differences Based on Seniority in Teachers' NFRS Scores

	Variable	*Factor*	*Sum of Squares*	*df*	*Mean Square*	*F*	*Sig.*
Subdimensions of the Need for Renewal	Organizational Structure	Between groups	1778.65	4	444.66	4.16	.003
		Within the group	53614.89	501	107.02		
		Total	55393.53	505			
	Organizational Goal	Between groups	1069.85	4	267.46	3.79	.005
		Within the group	35360.09	501	70.58		
		Total	36429.94	505			
	Democracy	Between groups	395.51	4	98.88	1.83	.122
		Within the group	27054.12	501	54.00		
		Total	27449.63	505			
	School-Environment Relations	Between groups	1838.66	4	459.67	6.30	.000
		Within the group	36576.97	501	73.00		
		Total	38415.62	505			

According to the data in Table 7, there are significant differences based on teachers' seniority in the subdimensions of Organizational Structure ($F(4, 501)=4.16$, $p< .05$), Organizational Goal ($F(4, 501)=3.79$, $p< .05$), and School-Environment Relations ($F(4, 501)=6.30$, $p< .05$). According to the Bonferroni test results, the difference in the 'Organizational Structure' subdimension shows that teachers with 21 years or more of seniority ($X=35.63\pm11.91$) have significantly lower scores than those with 0-5 years ($X=42.54\pm9.29$), 6-10 years ($X=42.29\pm10.78$), and 11-15 years ($X=42.59\pm11.15$). In the 'Organizational Goal' subdimension, teachers with 21 years or more of seniority ($X=35.82\pm10.65$) scored significantly lower than all other groups (0-5 years=41.19±7.90, 6-10 years=42.29±10.78, 11-15 years=42.59±11.15, 16-20 years=40.72±9.67). Additionally, in the 'School-Environment Relations' subdimension, teachers with 21 years or more of seniority ($X=31.20\pm11.35$) scored significantly lower than teachers in other seniority groups (0-5 years=38.15±7.66, 6-10 years=37.54±8.54, 11-15 years=38.82±8.87, 16-20 years=38.11±8.17).

Discussion

The primary objective of this study was to examine the relationship between the dimensions of an LO and the NFR within educational institutions. As schools navigate the complexities of the digital age and Industry 4.0, understanding how internal learning mechanisms influence the drive for innovation is paramount. Our findings offer a nuanced, at times counterintuitive perspective on how teachers perceive the NFR in relation to their collaborative and systemic thinking capabilities.

One of the most striking findings of this research is the negative correlation between the sub-dimensions of the LOS ("Working as a Team" and "Systems Thinking") and the sub-dimensions of the NFRS ("Organizational Structure," "Goals," "Democracy," and "School-

Environment Relations"). Statistically, "Working as a Team" showed an inverse relationship with Organizational Structure (r = -0.20) and Democracy (r = -0.19). Similarly, "Systems Thinking" correlated negatively with Organizational Structure (r = -0.18). While conventional wisdom might suggest that "learning" leads to a "greater desire for renewal," these results suggest a different organizational dynamic. When teachers successfully "Work as a Team," they may feel that the existing organizational structure and democratic processes are functioning effectively (Kucuk & Cepni, 2005). Consequently, their perceived need for external or structural renewal decreases because their immediate collaborative needs are being met. Systems thinking allows individuals to see the "big picture" and understand the interdependencies within the school. This holistic view may lead teachers to appreciate the logic behind current structures, thereby reducing the perceived urgency for radical renewal. They may see the system as self-correcting rather than in need of a top-down overhaul. This aligns with the view that a mature LO possesses high internal "crisis capacity" (Meydan & Durmaz, 2021). When the internal "engine of renewal" is already running smoothly, the desperate cry for "institutional renewal" -which often implies a response to a failing system - is naturally silenced.

The analysis revealed a significant dichotomy in how male and female teachers interact with the concepts of learning and renewal. In Table 4, female teachers scored significantly higher in Work as a Team ($t = 1.98$, $p < .05$) and Systems Thinking ($t = 3.16$, $p < .05$). This suggests that female educators may place a higher premium on the process of education- how teams interact, how knowledge is shared, and how the school functions as a cohesive unit. This finding supports literature suggesting that women in educational settings often lean toward transformational leadership styles, prioritizing relational dynamics and collective intelligence (Kuguoglu & Kucuk, 2012).

Conversely, Table 6 shows that male teachers scored significantly higher across all sub-factors of the NFRS, particularly in Organizational Structure and Goal. This suggests that while women focus on the internal learning process, men may be more attuned to the institution's external and structural alignment. Male teachers might perceive a greater gap between the school's current goals and the demands of the "knowledge war," leading to a higher reported need for structural transformation. This gap highlights a critical management challenge: administrators must balance the female-driven focus on "how we learn together" with the male-driven focus on "where the organization is headed structurally."

The data regarding professional seniority (Tables 5 and 7) presents a compelling narrative about the professional lifecycle of a teacher. Teachers with 21 or more years of seniority scored significantly higher on Shared Vision ($X=23.10$) and Work as a Team ($X=25.70$). This indicates that veteran teachers are the primary carriers of institutional memory and cultural cohesion. Over decades, they have internalised the school's mission and developed deep-rooted collaborative networks. They represent the "stable core" of the LO.

However, Table 7 shows that these veteran teachers (21+ years) have the lowest scores on the NFRS in Organizational Structure, Goal, and School-Environment Relations. In contrast, novice teachers (0-5 years) reported significantly higher NFR. We believe that several factors could explain this. One is noted by Ugurlu (2017), long-term tenure can lead to inertia. Veteran teachers may be more resistant to structural changes because they have adapted their methods to the existing system over decades. The second is that younger teachers, entering the profession with fresh perspectives on Industry 4.0 and digital transformation, may experience "culture shock" when confronted with traditional school hierarchies, leading to a higher reported NFR. Third is high scores in "Shared Vision" among veterans, which might

actually act as a shield. If they believe strongly in the established vision, they may be less likely to see the need for a new "Organizational Purpose."

The results of this study offer several strategic insights for school administrators and policymakers:

1. Targeting the "Seniority Silos": Since veteran teachers hold the "Shared Vision" but perceive the least "NFR," leaders must find ways to bridge this gap. Veteran teachers should be empowered as "mentors of change" rather than becoming "gatekeepers of the status quo."
2. Leveraging Gender Strengths: Schools can foster innovation by utilizing the high "Systems Thinking" of female staff to design the processes of change, while involving male staff in the structural and goal-setting phases where their perceived NFR is highest.
3. Addressing the Negative Correlation: Administrators should be aware that just because a school has high "Teamwork" scores does not mean it is ready for "Renewal." In fact, a happy, cohesive team might be the most resistant to structural change because they feel the current system "works for them." Renewal strategies must explicitly demonstrate how change will enhance, rather than disrupt, existing collaborative successes.

Conclusion

This research addresses a crucial gap by statistically connecting the dimensions of an LO to the institutional NFR. The results indicate that learning and renewal often do not align perfectly; instead, they are in a complex tension. As Shared Vision and Work as a Team grow with experience, the perceived NFR tends to decline. Additionally, the inverse link between team-based learning and the push for structural change implies that "soft" organizational achievements can sometimes obscure the urgent need for structural reform. To survive in the competitive "knowledge war," schools must develop a culture where the ability to learn collaboratively is actively used to drive ongoing updates to goals and structures.

Disclosure Statement

No potential conflict of interest was reported by the author(s).

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