

The Effects of Professional Job Satisfaction on School Leadership

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ABSTRACT

In this study, it is aimed to examine the effect of job satisfaction of high school principals on school leadership. For this purpose, the data obtained through the "School Leadership Scale" and "Job Satisfaction with Profession Scale" in the "Teaching and Learning International Survey -TALIS- data set published by OECD were used. The sample of the study consists of 448 high school principals randomly selected by TALIS through two-stage stratified sampling method to represent the international population. The test of variability between the perceptions of principals according to the personal variables of the research was tested by causal comparison model; whether there is a relationship between principals' professional job satisfaction and school leadership was tested by correlation model; the predictive power of high school principals' professional job satisfaction on school leadership was tested by multiple regression model. As a result of the research, it was revealed that there is a positive and significant relationship between high school principals' professional job satisfaction and school leadership, and as principals' perceptions of professional job satisfaction increase, school leadership behaviour levels increase. For practitioners, it is suggested that renumeration, benefits and workplace conditions job satisfaction elements be put into practice and structural arrangements be made in this direction in order to ensure the professional job satisfaction of school leaders.

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Keywords:3

Professional job satisfaction, school leadership, high school principals.

INTRODUCTION

In the twenty-first century, the codes of change have redefined the expectations of the individual from education and learning in line with the expectations of society from the individual. Transformations in the source and nature of knowledge have challenged the traditional functions of the school as a source of knowledge and created new needs and skill areas in agreement with the changing cultural, educational and economic needs of the individual and society (Leahy, Holland & Ward, 2019). This challenge to the traditional functions of the school has defined the key roles for concepts such as school effectiveness, managerial effectiveness and leadership in administrative processes (Fidler & Atton, 2004; Hallinger & Heck, 2003; Weindling & Earley, 1987). In this context, the concept of leadership became prominent in the process and started to be handled differently from the concept of management (Bolman & Deal, 1997; Bush & Glover, 2003; Ofsted, 2003).

Traditionally, leadership has been seen as a unique and solid substance within itself for a long time. However, in the process of change and transformation of school organisations, it can be ascertained that this understanding has evolved into a pluralistic leadership understanding such as school leadership, teacher leadership, distributive leadership (Leithwood, Sun & Schumacker, 2020; Yalçın et al, 2023). Especially, increased school autonomy and a greater focus on education and school outcomes have made it essential to reconsider the role of school leaders. School leadership is now an education policy priority around the world (Pont, Nusche & Moorman, 2008).

School leaders have to not only transform themselves into leaders but also, by promoting a positive school climate, orient and motivate their teachers for the contemporaneous education system to be renovated in line with the new transformation era of education (Atasoy, 2023). Effective school leadership is essential to improve the efficiency and equity of schooling, and it plays a crucial role in improving school outcomes by influencing the motivations and capacities of teachers, as well as the school climate and environment (Pont, Nusche & Moorman, 2008). In this context, it is clear that ensuring motivation and job satisfaction and staff empowerment for improving school outcomes are among the main areas of responsibility of school leadership. As proactive and risk-taking individuals, leaders instil confidence to the people they lead and direct them (Kavrayıcı, 2023). In this framework, it can be put forward that high level job satisfaction of employees has a critical importance for achieving the determined organisational goals.

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It can be stated that job satisfaction, which is not encountered much in classical organisational approaches, has started to be given importance with the modern and post-modern management approaches and is among the most studied subjects in the field of management and organisational behaviour. However, there are different definitions and descriptions of the concept in the related literature. According to Locke (1976) job satisfaction can be defined as "pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences" (p. 1300). On the other hand, Mottaz (1988) argues that job satisfaction is an effective response resulting from an evaluation of a work situation. Similarly, Lee (2000) regards that it is a general feeling and attitude towards the job. When the dimensions that consists job satisfaction, generally they can be classified as management, supervision or leadership of organization, renumeration, benefits, workplace conditions, organisational practices and relationships with co-workers (Misener et al., 1996; Smith, Kendal & Hulin, 1969).

The relationship between leadership and job satisfaction is multidimensional. As a matter of fact, when the literature is examined, there are many studies on the effect of leadership on job satisfaction (Aksu & Aktaş, 2005; Belias & Koustelios, 2014; Bhatti et al., 2012; Rad & Yarmohammadian, 2006; Tsai, 2011; Wilderom, Berg & Peter, 2004). However, it can be said that the number of studies examining the effect of job satisfaction on leadership and the leader's leadership style is quite inadequate in the literature. When the studies conducted in Turkey are reviewed in general, it is seen that these studies mostly aimed at investigating the effect of different leadership styles or characteristics on job satisfaction (Akkuş, 2022; Bıyık, Şimşek & Erden, 2017; Mert, Dördüncü & İncaz, 2019; Tan 2016; Tekin, 2020). Akkuş (2022), who focused on the effect of responsible leadership characteristics of school administrators on job satisfaction, found that school administrators have a high level of responsible leadership characteristics based on teacher opinions and that these characteristics positively affect teachers' job satisfaction levels. Besides, Tan (2016) concluded that team leadership behaviours of primary school administrators are a strong and significant predictor of teachers' job satisfaction levels. In their study examining the effect of transformative leadership behaviour positively affects job satisfaction.

In organisations such as as schools, where the interaction plays a crucial role, there are still many aspects in question about job satisfaction and school leadership. In this regard, besides the relationship between school leadership and job satisfaction, it is an important problem area to discuss the effects of job satisfaction on school leadership. As a matter of fact, it is clear that school leaders, as employees, are not isolated from the issue of job satisfaction. In this study, it is aimed to examine the effect of job satisfaction of school principals working in high schools on school leadership. For this purpose, the study examined the effect of job satisfaction of high school principals on school leadership using the "Teaching and Learning International Survey (TALIS)" data set published by OECD (2019). In the TALIS data set, "Intenational Standard Classification of Education (ISCED 3)" school leadership is discussed in two dimensions/scales; (i) school leadership, (ii) participation among stakeholders, principals. In this study, the data set obtained from the "School Leadership (PLEADS)" subscale was used. Similarly, in the title of the study, job satisfaction was addressed in three dimensions: (i) job satisfaction with work environment, (ii) job satisfaction with profession, (iii) satisfaction with target class autonomy. In the job satisfaction dimension of this study, the data set obtained from the "Job Satisfaction with Profession (JSPRO)" subscale was used and the study was narrowed in this context. In the literature, it is observed that the related studies focus on the effect of various dimensions of leadership on employees' job satisfaction, and it is noteworthy that the studies on the effect of job satisfaction on school leadership are limited. This study is expected to set an example for future studies on the effect of job satisfaction on school leadership.

This study was conducted to investigate the effect of high school principals' professional job satisfaction on school leadership. In line with this purpose, the research questions were formed as follows:

- 1. Is there a significant difference between the professional job satisfaction perceptions of high school principals according to gender, educational level, working time in the current school and total experience as a principal?
- 2. Is there a significant difference between the school leadership behaviour levels of high school principals according to gender, education level, working time in the current school and total principal experience?

- 3. What is the relationship between professional job satisfaction of high school principals and school leadership?
- 4. Are high school principals' perceptions of professional job satisfaction an important predictor of school leadership?

METHOD

Research Design

This study, which aims to examine the effect of professional job satisfaction of high school principals on school leadership, was designed with a quantitative research approach. The findings obtained in quantitative research can be expressed in numerical values and have a measurable quality (Ekiz, 2020). In the study, causal comparison design, one of the survey models, was also used. Survey research is used to determine the attitudes, actions, ideas and beliefs of individuals and is known for its superiority in showing cause and effect relationship (Christensen et al., 2020). In this study, cause and effect relationships between variables were investigated with a causal comparison design. With the causal comparison design, the possible causes of a behaviour pattern are tried to be determined by comparing those who have this pattern with those who do not (Balcı, 2021). The variability test between principals' perceptions according to the personal variables of the study (gender, education level, working time in the current school and total principal experience) was conducted with the causal comparison model. Whether there is a relationship between principals' professional job satisfaction and school leadership was tested with the correlation model, and the power of high school principals' professional job satisfaction to predict school leadership was tested with the multiple regression model.

Research Sample/Study Group/Participants

The research is based on the data collected from school principals in the Teaching and Learning International Survey (TALIS) 2018 study organised by the Organisation for Economic Co-operation and Development (OECD). The topics included in the questionnaires applied to school principals in TALIS 2018 are personal information, school information, school leadership, teacher evaluation, school climate, induction and counselling activities, training in situations of diversity and professional satisfaction (OECD, 2019).

TALIS 2018 collected the data from the principals working at the International Standard Classification of Education (ISCED); ISCED 1, ISCED 2 and ISCED 3 levels. In the TALIS 2018 technical report, it is stated that the sample was randomly selected by two-stage stratified sampling method to represent the population. In this study, the data collected from 448 school principals from 457 schools at ISCED 3 (9th grade-12th grade) level were used. A total of 29 forms, which were omitted, not filled in and indicated as missing data, were excluded from the data set, and the number of participants included in the analyses was 419. The distribution of the participants according to personal variables is indicated in Table 1.

Table 1. The number of school principals in the sample according to personal variables

Variable	Categories	N	%
Gender	Female	26	6.2
Gender	Male	393	93.8
Education Status	Licence	283	67.5
	Postgraduate	136	32.5
Engaging at Commont	0-3 years	232	55.4
Experience at Current	4-7 years	146	34.8
School	8 years+	41	9.8
	0-4 years	185	44.2
ManagantEuro	5-9 years	113	27.0
Management Experience	10-14 years	55	13.1
	15 years+	66	15.8
Total	_	419	100

As seen in Table 1, 26 (6.2%) of the principals participating in the study were female and 393 (93.8%) were male. The number of principals with bachelor's degree is 283 (67.5%) and the number of principals with postgraduate degree is 16 (32.5%). 232 (55.4%) of the principals have 0-3 years of experience, 146 (34.8%) of them have 4-7 years of experience, and 41 of them (9.8%) have 8 or more years of experience. As for the experience of the principals, 185 (44.2%) of them have 0-4 years, 113 of them (27%) have 5-9 years, 55 of them (13%) have 10-14 years, and 66 of them (15.8%) have 15 years or more.

Research Instruments and Processes

TALIS 2018 data were used in the research. TALIS asks teachers and school principals about the working conditions and learning environments in their schools to help countries face various challenges. TALIS 2018 school principal surveys aim to better understand the characteristics of principals and their status regarding professional development. For this purpose, information on the distribution of high school principals by gender, experience, working activities, educational background, age distribution, professional development activities, professional development needs and barriers to professional development, school education and policies were analysed. The survey was organised and conducted in three phases: (1) the pilot phase whose aim was to develop and trial the content of the survey questions with a small number of TALIS participants; (2) the field trial phase which wasdesigned to test and evaluate the questionnaires and item formats as well as the survey procedures and data collection modes; and (3) the main survey phase which focused on collecting the TALIS data in the 48 participating countries and economies (OECD, 2019).

In this study, "School Leadership (SL)" and "Professional Job Satisfaction (subscale) - (VJS)" scales were used. In the OL scale, principals were asked to report how often they fulfilled the three statements in the scale in the last 12 months (1= Never or rarely, 4= Very often). In the MIT scale, school principals were asked questions about how they felt about their work in general, and they were asked to indicate their degree of agreement (1= Strongly disagree, 4= Agree) with four different statements. The research data were obtained from the OECD web page (OECD, 2023). Information on the validity and reliability of data collection tools is given in Table 2.

Table 2. Information on validity and reliability of measurement tools

Scales	Article		Reliability/			
Scales	Number	CFI	TLI	RMSEA	SRMR	Omega (ω)
Job Satisfaction with Profession Scale	4	.985	.911	.045	.026	.711
School Leadership Scale	3	.920	.799	.092	.045	.808

The fit indices in Table 2 show that the validity of the data collection tools is high (Çokluk, Şekercioğlu & Büyüköztürk, 2012; Sümer, 2000; Şimşek, 2007; Tabacnick, & Fidell, 2015) and gives reliable results (Şencan, 2005).

Data Analysis

SPSS 21.0 was used to analyse the research data. Before starting the analyses, a new file was created by copying the data set of the scales related to the personal variables to be used in this study from the TALIS 2018 data file. Then, 29 instruments that were omitted, not filled in, and indicated as missing data were deleted from data set. The limit of p<0.05 was accepted for differences. Before the analyses, outliers were found by calculating Mahalonobis distances with regression analysis. In the chi-square table, values lower than $(X^2<0.001)$ were checked, it was observed that no deletion was required (Tabacnick & Fidell, 2015b). Then, the skewness and kurtosis coefficients and graphical outputs were analyzed to check whether the data showed a normal distribution. Skewness and kurtosis values close to zero indicate that the distribution is normal. In general, the values between \pm 1.0 are considered as perfect (George & Mallery, 2016). In this study, it was seen that the skewness value of the distribution of the "Vocational Job Satisfaction Scale" scale items (-.371), and the kurtosis value (-.419), the skewness value of the distribution of the "School Leadership Scale" scale items (-.186) and kurtosis value (.306) are appropriate for the normality assumptions since they are between \pm 1.0. Additionaly, the normality of the items can be determined by graphical methods; It was also evaluated with histogram, Q-Q dot plot and box-whisker plot (Durmuş, Yurtkoru & Çinko, 2011; Tabacnick & Fidell, 2015b). As a result of the analyses, it was seen that the items showed a distribution close to normal level.

In the analyses, t-test for independent samples was used for pairwise comparisons (gender, education level). More than two comparisons (tenure in the current school, experience as a principal) were tested with one-way ANOVA (analysis of variance). Tukey and Scheffe test results were interpreted for pairwise comparisons (Durmuş, Yurtkoru & Çinko, 2011). Pearson correlation analysis was used to examine the relationship between principals' perceptions of professional job satisfaction and school leadership behaviour levels. The correlation coefficient between the variables was interpreted according to the values of 0.00 - 0.30 low level relationship, 0.30 - 0.70 medium level relationship, 0.70 - 1.00 high level relationship (Büyüköztürk,

2020). Multiple linear regression method was used in the analyses related to the prediction of school leadership by Professional job satisfaction.

FINDINGS

In this part of the study, the analyses on whether school principals' perceptions of professional job satisfaction and school leadership behaviour levels differ according to personal variables, and the power of principals' professional job satisfaction to predict school leadership are included in the results of multiple linear regression analysis.

Differentiation of Principals' Professional Job Satisfaction Perceptions According to Personal Variables

In this section, the differentiation status of school principals' perceptions of professional job satisfaction according to personal variables, independent samples t-test and one-way ANOVA results are given. The results of the analysis of school principals' perceptions of professional job satisfaction according to personal variables are displayed in Table 3.

Table 3. Differentiation of school principals' professional job satisfaction perceptions according to personal variables

			_		Sum of Squares		Mean Squares		
Variable	Categories	N	X	SS	Su Sq	sd	M Sq	t/F	P
Gender	Female	26	2.95	1.81		417		.313	.754
Gender	Male	393	2.97	1.63		117		.515	., 54
Education	Licence	283	2.99	1.62	_	417	_	1.226	.221
Status	Postgraduate	136	2.94	1.67		417		1.220	.221
Experience at	0-3 years	232	2.93	1.65	12.000		6.040		
Current School	4-7 years	146	3,02	1.60	13.898 1112.63			6.949 2.684	2.589
	8 years+	41	3.02	1.67					
	0-4 years	185	2.93	1.59					_
Management Experience	5-9 years	113	3.01	1.70	8.136	3 415	3 2.712	1.003	.391
	10-14 years	55	2.99	1.54	1122.39		2.705		
	15 years+	66	3.00	1.74					

^{***}p < .05

According to the independent sample t-test results in Table 3, there is no significant difference between the perceptions of school principals on professional job satisfaction according to gender (t(417)=0.313, p>0.05) and educational status (t(417)=1.226, p>0.05) variables. In other words, school principals' perceptions of professional job satisfaction do not differ according to gender and educational status, principals have similar perceptions. When the results of one-way ANOVA in Table 3 are analysed; there is no significant difference between school principals' perceptions of professional job satisfaction according to the working time in the current school (F(2,416)=2.589, p>0.05) and experience in administration (F(3,415)=1.003, p>0.05). In other words, principals' perceptions of professional job satisfaction do not differ according to their working time in the current school and administrative experience, principals have similar perceptions.

Differentiation of Principals' School Leadership Behaviour Levels According to Personal Variables

In this section, the differentiation status of principals' school leadership behaviour levels according to personal variables, independent samples t-test and one-way ANOVA results are given. The results of the analysis of the differentiation of principals' school leadership behaviour levels according to personal variables are given in Table 4.

Table 4. Differentiation of school principals' professional job satisfaction perceptions according to personal variables

Variable	Categories	N	\bar{x}	SS	Sum of Squares	sd	Mean Squares	t/F	P
Gender	Female Male	26 393	3.05 2.84	1.62 1.80		417		2.324	.021***
Education Status	Licence Postgraduate	283 136	2.86 2.82	1.83 1.74	_	417	_	.865	.387
Experience at Current School	0-3 years 4-7 years 8 years+	232 146 41	2.83 2.89 2.78	1.88 1.69 1.67	9.301 1354.80	2 416	4.650 3.257	1.428	.241
Management Experience	0-4 years 5-9 years 10-14 years 15 years+	185 113 55 66	2.84 2.87 2.76 2.93	1.95 1.68 1.59 1.69	15.718 1348.392	3 415	5.239 3.249	1.613	.186

^{***}p < .05

Considering the independent sample t-test results of the differentiation of principals' school leadership behaviour levels according to personal variables in Table 4, there is a significant difference between principals' school leadership behaviour levels according to gender (t(417)=2.324, p<0.05), but there is no significant difference according to educational status (t(417)=0.865, p>0.05). In other words, while school leadership behaviour levels of principals differ according to gender, they do not differ according to educational status. Accordingly, behaviour levels of female (\bar{X} = 3.05) principals regarding school leadership are higher than male (\bar{X} = 2.84) principals.

When we examine the results of one-way ANOVA in Table 4, there is no significant difference between the school leadership behaviour levels of principals according to their working time in the current school (F(2,416)=1.428, p>0.05) and administrative experience (F(3,415)=1.613, p>0.05). In other words, principals school leadership behaviour levels do not differ according to the working time in the current school and administrative experience; principals have similar perceptions.

The Relationship between Principals' Professional Job Satisfaction and School Leadership

Under this heading, the results of the analysis of the relationship between the perceptions of professional job satisfaction and school leadership behaviour levels of school principals working in high schools are given. Table 5 shows the results of Pearson Correlation analysis.

Table 5. Pearson correlation analysis results showing the relationship between principals' professional job satisfaction and school leadership behaviours

Variables	N	SH	Skewness	Kurtosis	1	2
1. Professional job satisfaction	11.41	1.80	371	.309	1	.206***
2. School leadership	11.90	1.64	186	.306		1

^{***}p < .01

When the values in Table 5 are examined, it is seen that the skewness and kurtosis coefficients of the variables are between \pm 1.0. The kurtosis and skewness values close to zero indicate that the distribution is normal. Most of the time, these values between \pm 1.0 are considered perfect (George & Mallery, 2016). There is a low level, positive and significant relationship between principals' professional job satisfaction and school leadership (p< .01; r=206). In another saying, as principals' perceptions of professional job satisfaction increase, the level of school leadership behaviours also increases.

The Predictive Power of Professional Job Satisfaction for School Leadership

In this part of the study, the predictive power of professional job satisfaction for school leadership was analysed by multiple linear regression analysis. The results of the analysis are presented in Table 6.

Table 6. Multiple linear regression analysis results on the predictive power of principal's professional job satisfaction for school leadership

Variable	9	В	SH	β	t	p	Binary r	Partial r
Fixed		8.722	.633		13.786			
Occupational satisfactio	•	.226	.053	.206	.206	0.000***	.206	.206
R=. 206	R ² =.043	F(1,41	7)=18.510	p= <.05	***			

Table 6 shows that principals' professional job satisfaction predicts school leadership at a significant level (F(1,417)=18.510, p<0.05). There is a weakly significant relationship (R=0.206) between principals' perceptions of professional job satisfaction and school leadership behaviours. Principals' professional job satisfaction explains 4.3% of the total variance of school leadership $(R^2=0.43)$. In other terms, 4.3% of the total variance of school leadership is explained by principals' professional job satisfaction.

The results of multiple regression analysis reveal that the mathematical model for the prediction of school leadership by principal's professional job satisfaction was formed as follows:

Job Satisfaction= 0,206 x School Leadership

DISCUSSION AND CONCLUSION

In the study, it was aimed to examine the effect of job satisfaction on the level of school leadership of high school principals. For this purpose, the results of "School Leadership" and "Job Satisfaction with Profession" in TALIS data set were used.

When the results related to the first sub-objective of the research are evaluated, it can be concluded that there is no difference between the *perceptions of school principals' professional job satisfaction* according to gender, education level, working time in the current school and administrative experience variables. When the studies on the job satisfaction perceptions of school principals are examined, Altuntaş et al. (2023) concluded that there was no difference in job satisfaction levels according to gender, managerial experience and educational status; however, there were differences in job satisfaction levels according to age, professional experience and marital status. When the results of the two studies were compared, differentiation was observed in the experience dimension. Altuntaş et al. (2023) stated that managers with 1-10 years of seniority have lower job satisfaction than more senior managers. It is thought that the differentiation of the two studies in the context of the experience variable may be due to the sample. As a matter of fact, in this study, TALIS data set, which is a multi-cultural data set where the data are collected on an international scale, was used. Yet, Altuntaş et al. (2023) used a sample size of 144 people selected from the universe of Küçükçekmece district of Istanbul. In this context, it is anticipated that cultural codes related to the sample may also have affected the results of the study.

The school leadership behaviour levels of principals do not differ according to their education level, working time in the current school and administrative experience. Neverthless, a difference was found between principals' school leadership behaviour levels according to gender. Accordingly, the perceptions of female principals regarding school leadership behaviours are higher than male principals. In a study aiming to determine school leadership behaviour according to teachers' views, Köybaşı et al. (2017) uncovered that teachers' views on school leadership differed according to the variables of branch, seniority, the number of teachers in the school, and faculty of graduation, but did not differ according to gender. When the results of this study in the context of examining school leadership in the context of various variables were compared with the results of Köybaşı et al. (2017)'s study, it was seen that the results differed in gender and seniority dimensions. However, the result of Köybaşı et al. (2017) in the context of seniority, in which the participants with 15-21 years of seniority differed from the other seniority groups, does not coincide with the results of the present study. It is thought that the difference between the results of the two studies in the seniority dimension

may be due to the difference between principals' perceptions of their own school leadership and teachers' perceptions of school leadership in the later periods of their professional seniority. In this context, it is possible to state that school principals' perceptions of their own school leadership do not show a negative valuation tendency compared to teachers' perceptions of their own school principals.

Principals' professional job satisfaction significantly predicts school leadership. Principals' professional job satisfaction explains 4.3% of the total variance of school leadership. In other words, 4.3% of the total variance of school leadership is explained by principals' job satisfaction. In this context, a positive and significant relationship was detected between professional job satisfaction and school leadership. As principals' perceptions of professional job satisfaction increase, the level of school leadership behaviours increases. Many studies on the relationship between different roles, dimensions and styles of leadership and job satisfaction revealed the existence of a significant and positive relationship between the two concepts (Akkuş, 2022; Aksu & Aktaş, 2005; Belias & Koustelios, 2014; Bhatti et al., 2012; Bıyık et al., 2017; Mert et al., 2019; Rad & Yarmohammadian, 2006; Tan 2016; Tekin, 2020; Tsai, 2011; Wilderom et al., 2004).

As a result, considering the results of the studies in the literature that reveal the existence of the effect of leadership on job satisfaction and the results of this study predicting the effect of job satisfaction on school leadership, it is possible to suggest the existence of a bidirectional and reciprocal relationship between job satisfaction and leadership.

Suggestions

As a result of the research, it was determined that there was a positive and significant relationship between high school principals' professional job satisfaction and school leadership, and as principals' perceptions of professional job satisfaction increased, school leadership behaviour levels increased. In the literature, it is revealed that leadership is effective on employees' job satisfaction and some leadership roles and styles contribute positively to employees' job satisfaction. In order to increase the job satisfaction of employees, the idea of improving the leadership qualities of organisational leaders in various ways is a widely adopted method in theory and practice. However, when the results of the studies in the literature and the results of this study are evaluated together, it is clear that there is a mutual and positive correlative relationship between job satisfaction and leadership. Therefore, improving the leadership characteristics of school leaders through job satisfaction can be an effective and efficient strategy in achieving organisational goals. For practitioners, it is suggested that renumeration, benefits and workplace conditions job satisfaction elements be put into practice and structural arrangements be made in this direction so as to ensure the professional job satisfaction of school leaders. For researchers, it is suggested to conduct quantitative and qualitative studies to determine the effect of job satisfaction elements on school leadership behaviour.

Ethics Approval

In this article, journal writing rules, publication principles, research and publication ethics rules, journal ethics rules have been followed. The responsibility for any violations that may arise regarding the article belongs to the authors. The research data were taken from the TALIS 2018 data set, which is an international study. Therefore, there is no need to obtain ethics committee permission.

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Declaration of Author(s) Contribution Rate

In this study, the contribution rate of the first author is 55% and the contribution rate of the second author is 45%. There is no declaration of conflict of interest.

REFERENCES

- Akkuş, M. (2022). Okul yöneticilerinin sorumlu liderlik özelliklerinin öğretmenlerin iş tatminleri üzerindeki etkisi [The effect of school administrators' responsible leadership traits on teachers job satisfaction]. Balkan ve Yakın Doğu Sosyal Bilimler Dergisi, 8(1), 31-35. Retrieved from https://www.ibaness.org/bnejss/2022_08_01/05_Akkus.pdf
- Aksu, A., & Aktaş, A. (2005). Job satisfaction of managers in tourism. *Managerial Auditing Journal*, 20(5), 479-488. http://dx.doi.org/10.1108/02686900510598830
- Altuntaş, R., Kaplan, E., Yıldızbaş, M., Kaya, F., Duman, Y., Bilir, M., Ahilik S., & Kukal, S. (2023). Okul yöneticilerinin iş tatmin düzeylerinin incelenmesi [Investigation of school administrators' job

- satisfaction levels]. *Sosyal Gelişim Dergisi*, 1(1), 85-91. Retrieved from https://sosyalgelisimdergisi.com/index.php/pub/article/view/15
- Atasoy, R. (2023). Sustainability of the school leadership in the digital era under the shadow of crisis. In E. Al-A'ali & M. Masmoudi (Eds.), *Leadership and workplace culture in the digital era* (pp. 149-168). IGI Global.
- Balcı, A. (2021). Sosyal bilimlerde araştırma yöntem teknik ve ilkeler [Research methods, techniques and principles in social sciences]. Pegem Akademi Yayınları.
- Belias, D., & Koustelios, A. (2014). Leadership and job satisfaction: A review. *European Scientific Journal*, 10(8), 24-46. https://doi.org/10.19044/esj.2014.v10n8p%25p
- Bhatti, N., Maitlo, G. M., Shaikh, N., Hashmi, M. A., & Shaikh, F. M. (2012). The impact of autocratic and democratic leadership style on job satisfaction. *International Business Research*, 5(2), 192-201. http://dx.doi.org/10.5539/ibr.v5n2p192
- Bıyık, Y., Şimşek, T., & Erden, P. (2017). Etik liderliğin çalışanların iş performansı ve iş tatminine etkisi [Effect of ethical leadership on the employees' job performance and job satisfaction]. *Gazi İktisat ve İşletme Dergisi*, 3(1), 59-70. Retrieved from https://dergipark.org.tr/en/pub/gjeb/issue/27485/288383
- Bolman, L., & Deal, T. (1997) Reframing organizations. (2nd Edition). Jossey-Bass Publications.
- Bush, T., & Glover, D. (2003). School leadership: Concepts and evidence. NCSL Press.
- Büyüköztürk, Ş. (2020). Sosyal bilimler için veri analizi el kitabı: İstatistik, araştırma deseni spss uygulamaları ve yorum [Data analysis handbook for social sciences: Statistics, research design spss applications and interpretation]. Pegem Akademi Yayıncılık.
- Christensen, L. B., Johnson, R. B., & Turner, L. A. (2020). Araştırma yöntemleri desen ve analiz Research methods, pattern and analysis]. In A. Aypay (Trans. Ed.), *Araştırma yöntemleri ve desen analizi* [Research methods and pattern analysis] (*pp. 367-400*). Anı Yayıncılık. [Published in 2014, 12th Edition, Pearson].
- Çokluk, Ö., Şekercioğlu, G., & Büyüköztürk, Ş. (2012). Sosyal bilimler için çok değişkenli istatistik SPSS ve LISREL uygulamaları [Applications of SPSS and LISREL in multivariate statistics for social sciences]. Pegem Akademi Yayıncılık.
- Durmuş, B., Yurtkoru, E. S., & Çinko, M. (2011). Sosyal bilimlerde SPSS ile veri analizi [Data analysis with SPSS in social sciences]. Beta Yayınları.
- Ekiz, D. (2020). Bilimsel araştırma yöntemleri [Scientific research methods]. Anı Yayıncılık.
- Fidler, B., & Atton, T. (2004). The Headship game: The challenges of contemporary school leadership. Routledge Falmer Press.
- George, D., & Mallery, P. (2016). *IBM SPSS statistics 23 step by step: A simple guide and reference*. Routledge Press. Hallinger, P., & Heck, R. (2003). Understanding the contribution of leadership to school leadership. In M. Wallace & L. Poulson (Eds.), *Learning to read critically in educational leadership and management (pp. 215-248)*. Sage Publications.
- Kavrayıcı, C. (2023). Kapsayıcı liderlik ölçeğinin Türk kültürüne uyarlanması: Devlet okulları bağlamında geçerlik güvenirlik çalışması [Adapting the inclusive leadership scale to Turkish culture: A validity and reliability study in the context of public schools]. *Anadolu Üniversitesi Eğitim Fakültesi Dergisi (AUJEF)*, 7(3), 628-643. https://doi.org/10.34056/aujef.949216
- Leahy, S. M., Holland, C., & Ward, F. (2019). The digital frontier: Envisioning future technologies impact on the classroom. *Futures*, 113, 1-10. https://doi.org/10.1016/j.futures.2019.04.009
- Leithwood, K., Sun, J., & Schumacker, R. (2020). How school leadership influences student learning: A test of "The Four Paths Model". *Educational Administration Quarterly*, 56(4), 570-599. https://doi.org/10.1177/0013161X10377347
- Lee, H. R. (2000). An empirical study of organizational justice as a mediator of the relationships among leader-member exchange and job satisfaction, organizational commitment, and turnover intentions the lodging industry. [Unpublished Doctoral Thesis]. Virginia Polytechnic Intitute and State University.
- Locke, E. A. (1976). The nature and causes of job satisfaction. In M. D. Dunette. (Ed.), *Justice and social interaction* (pp. 167-218). Rand McNally Press.
- Mert, G., Dördüncü, H., & İncaz, S. (2019). Dönüştürücü liderlik davranışlarının iş tatmini üzerindeki etkisi: Vakıf üniversitesi örneği [The effect of transformational leadership behaviors on job satisfaction: The case of foundation university]. *Uluslararası Sosyal Araştırmalar Dergisi*, 12(65), 1169-1182. http://dx.doi.org/10.17719/jisr.2019.3526

- Misener, T. R., Haddock, K. S., Gleaton, J. U., & Ajamieh, A. R. (1996). Toward an international measure of job satisfaction. *Nursing Research*, 45, 87-91. http://dx.doi.org/10.1097/00006199-199603000-00006
- Mottaz, C. J. (1988). Work satisfaction among hospital nurses. *Hospital and Health Services Administration*, 33(1), 57-74. Retrieved from https://pubmed.ncbi.nlm.nih.gov/10286427/
- Köybaşı, F., Beycioğlu, K., Uğurlu, C. T., & Özer, N. (2017). Müdürlerin okul liderliği davranışları: Öğretimsel destek, ilişki ve açıklık düzeyleri [Principals' school leadership behaviours: levels of ınstructional support, relationship and openness]. *Bayburt Eğitim Fakültesi Dergisi*, 12(24), 781-808. Retrieved from https://dergipark.org.tr/en/pub/befdergi/issue/33599/294883
- Ofsted (2003). Leadership and management What inspection tells us. Ofsted Press.
- Pont, B., Nusche, D., & Moorman, H. (2008). Improving school leadership. OECD Publishing.
- Rad, A. M., & Yarmohammadian, M. H. (2006). A study of relationship between managers' leadership style and employees' job satisfaction. *Leadership in Health Services*, 19(2), 11-28. http://dx.doi.org/10.1108/13660750610665008
- Smith, P. C., Kendall, L. M., & Hulin, C. L. (1969). *The measurement of satisfaction in work and retirement: A strategy for the study of attitudes.* Rand Mcnally Publications.
- Sümer, N. (2000). Yapısal eşitlik modelleri: Temel kavramlar ve örnek uygulamalar [Structural equation modeling: basic concepts and applications]. *Türk Psikoloji Yazıları*, 3(6), 49–74.
- Şencan, H. (2005). Sosyal ve davranışsal ölçümlerde güvenirlik ve geçerlik [Reliability and validity in social and behavioral measures]. Seçkin Yayıncılık.
- Şimşek, Ö. F. (2007). Yapısal eşitlik modellemesine giriş: Temel ilkeler ve Lisrel uygulamaları [Introduction to structural equation modeling: Basic principles and applications of Lisrel]. Ekinoks Yayıncılık.
- Tabacnick, B., & Fidell, L. S. (2015a). Yapısal eşitlik modellemesi [Structural equation modeling]. In M. Baloğlu & G. Şekercioğlu (Trans. Ed.), *Çok değişkenli istatistiklerin kullanımı* [Use of multivariate statistics] (pp.681-785). Nobel Akademi Yayınları.
- Tabacnick, B., & Fidell, L. S. (2015b). Temizlik: Analizden önce verilerin taranması. In M. Baloğlu., M. Özer & N. Ergeç (Trans. Ed.), *Çok değişkenli istatistiklerin kullanımı* [Use of multivariate statistics] (pp. 60-114). Nobel Akademi Yayınları.
- OECD (2019). TALIS 2018 technical report. OECD Publishing.
- OECD (2023). TALIS 2018 data. Retrieved from https://www.oecd.org/education/talis/talis-2018-data.htm
- Tan, Ç. (2012). The effect of the behaviours of the team leadership of primary school administrators on the job satisfaction of the teachers, organisational commitment and the level of organisational citizenship [Unpublished Doctoral Thesis]. First University, Elazığ.
- Tekin, E. (2019). Paternalist liderliğin iş tatmini ve çalışan performansına etkisi üzerine bir araştırma [An investigation on the effect of paternalist leadership on job satisfaction and employee performance]. Üçüncü Sektör Sosyal Ekonomi, 54(1), 178 204. http://dx.doi.org/10.15659/3.sektor-sosyal-ekonomi.19.03.1087
- Tsai, Y. (2011). Relationship between organizational culture, leadership behavior and job satisfaction. *BMC Health Services Research*, 11, 1-9. Retrieved from https://bmchealthservres.biomedcentral.com/articles/10.1186/1472-6963-11-98
- Van den Berg, P. T., & Wilderom, C. P. (2004). Defining, measuring, and comparing organisational cultures. *Applied psychology*, 53(4), 570-582. https://doi.org/10.1111/j.1464-0597.2004.00189.x
- Weindling, D., & Earley, P. (1987). Secondary headship: The first years. NFER-Nelson Publication.
- Yalçın, M.T., Çoban, Ö., Koçak, Ö., & İncedal, A. (2023). Dağıtımcı liderlik ve sosyal sermaye bağlamında örgütsel yenilikçilik [Organizational innovativeness in the context of distributed leadership and social capital]. *International Journal of Eurasia Social Sciences (IJOESS)*, 14(52), 687-705. http://dx.doi.org/10.35826/ijoess.3277