The Relationship Between Problem-solving Skills, Burnout Levels and Self-Efficacy Beliefs of School Principals

Ahmet Melih Güneş[1]
[1]Balıkesir University, 0000-0002-7484-5685

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Ahmet Melih Güneş[1*]
[1]Balıkesir University

Abstract

This research aims to determine the relationship between school principals' problem-solving skills, burnout levels and self-efficacy beliefs. A quantitative relational design was used in the study. The sample of the research consists of 224 school principals working in Balıkesir. In the research, "Problem-solving Inventory", "Freidman School Principals Burnout Scale" and "School Principals' Efficacy Perceptions Scale" were used as the data collection tools. Data were analyzed by T-test, Single-factor Analysis of Variance (ANOVA), and structural equation modeling. In the research, it was found that school principals' problem-solving skills were at a high level and they almost never experienced burnout and their self-efficacy perceptions were at a high level. The results of the study revealed that there was no significant difference between principals' problem-solving skills, burnout levels, and self-efficacy beliefs and variables such as gender, experience as a principal, and school level. In the study, there was also a low and negative correlation between principals' problem-solving skills and self-efficacy beliefs, self-efficacy beliefs and burnout level, and there was a positive and low relationship between principals' problem-solving skills and burnout level.

Keywords: Problem-solving skills, Burnout, Self-efficacy, School principal

Introduction

Like any other organization, schools are institutions with unique management systems and practices that evolve from interactions, relationships and values with their stakeholders (O'Brennan et al., 2017). Schools have many problem areas such as students, staff, parents, and the school culture. It is very important for school principals to solve the problems that may be experienced in any of these areas. There are often several possible ways to solve problems and successful leaders are expected to identify alternative solutions and find the appropriate solutions (Visone, 2018).

Problem-solving is an important factor for organizations. As in every organization, there are various problems in schools and the greatest responsibility for the solution of these problems falls on the school principals. The principal is primarily responsible for achieving the school's goals and success. School principals are expected to choose the best solution to the problems they encounter among many different options and produce the best solution under any circumstances. In order for this expectation to be fulfilled, the problem-solving skills of school principals must be developed (Aslanargun & Bozkurt, 2012; Güçlü, 2003; Khan et al., 2012; Konan, 2013).

In evaluating problem-solving skills in school administration, if the principal, teachers, parents, students, and community do not work well together, and if the school building, furniture, teaching resources, and garden are not well used, the school's work cannot produce efficient results. The management of all these can be achieved through overcoming the problems systematically and without any problems. In this respect, problem-solving skills, in which all the variables mentioned above can be handled together but in an appropriate order, have an important place in school administration (Akça & Yaman, 2009). Problem-solving is about overcoming the undesirable situations, obstacles and difficulties encountered in reaching a goal (Tekin & Akın, 2021). Inadequacy, tension and psychological disorders can be seen in individuals with poor problem-solving skills (Heppner & Petersen, 1982). According to Bingham (2004), solving problem-solving is a process that requires effort to eliminate the difficulties encountered to reach a certain goal. Individuals who can solve their problems

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* Corresponding Author: *Ahmet Melih Güneş, melihgunes@gmail.com*

have more self-confidence in decision-making, and they are more sociable in social interactions and have a positive self-perception (Şahin et al., 1993). On the other hand, people who consider themselves unsuccessful in problem-solving have more internal conflicts, are hypersensitive in interpersonal relations, have negative self-perceptions, and display hostile behaviors (Dixon et al., 1991). These and similar situations can cause the feeling of burnout in school principals.

It has psychological effects such as burnout, low morale, absenteeism, and being late to work. People who experience burnout develop negative sense of self and attitudes towards work. Their feelings and interest towards the people they work with become dull. People with burnout display indifferent and aggressive behaviors towards the people they serve and their employees (Malakh-Pines & Aronson, 1988). In addition to individual factors, organizational factors such as workload, control, rewards, co-workers, justice and values cause the differentiation of employees' burnout levels (Leiter & Maslach, 2005).

Burnout combines a negative attitude towards one's teaching performance with a decreased sense of personal self-efficacy: In this case, the perception of not reaching the set goals is accompanied by a deep sense of inadequacy (Gastaldi et al., 2014). Freudenberger (1974) defined burnout as the state of exhaustion resulting from failure, exhaustion, loss of energy and performance, and unmet demands; Friedman (2002) defined it as physical or emotional exhaustion, a sense of personal and professional failure, and a strong sense of depersonalization toward those served; Maslach and Jackson (1981) defined it as emotional exhaustion of the individual, an increase in his depersonalization, and a decrease in personal performance. For Maslach, Schaufeli ve Lieter (2001) burnout is being exposed to stress and emotional tiredness in the organization for an extended period of time while Malakh-Pines and Aronson (1981) defined it as a state of physical, emotional and mental exhaustion that occurs in the individual due to long-term exposure to emotionally challenging situations.

The quality of school education is directly related to the good management of schools. Successful management requires school administrators to be mentally and physically healthy, besides many qualifications that they should have. One of the factors that is emphasized and closely affects the mental health of school administrators is the level of burnout (Izgar, 2003). Burnout can occur in any field as well as in a professional sense. Every job has its difficulties, which can cause fatigue and boredom in people from time to time. When these feelings do not interfere with the people's responsibilities, they can cope with this situation more easily. However, if these short-term feelings gradually increase and the individual becomes unable to cope with them, burnout begins to occur. Burnout, if it lasts for a long time, can cause psychological problems and damage the individual's professional life and social resources (Capel, 1991). School principals can achieve professional success by cooperating with all stakeholders in realizing the school's mission. Students, staff, parents, organizational processes, and political processes are important factors in achieving this success. As a result of the negative experiences against these factors, principals may perceive their leadership skills as inadequate. In this situation, school principals may experience a sense of professional and personal failure and stress, and they may probably experience burnout (Friedman, 2002).

Another factor that is as important as problem-solving skills and burnout feelings for school principals in fulfilling their principal duties is self-efficacy beliefs. Self-efficacy belief affects the individual's attitude towards their profession, which affects the individual's professional success and increases the efficiency of the individual's work. As in every profession, educational institutions should ensure this success and efficiency. Self-efficacy beliefs of school principals, which are one of the building blocks of educational institutions, are extremely important in ensuring this success and efficiency. Self-efficacy belief is the individual's self-expression to reveal to what extent they can or cannot achieve that competence in line with their own beliefs, attitudes and experiences when it cannot be directly observed (Schunk, 1990). Self-efficacy is understood as an individual's belief in their strength and whether they can do something by interpreting their own competences (Köybaşı & Dönmez, 2017). Gist and Mitchell (1992) defined it as an estimate of one's capacity to regulate performance on a particular task while Bandura (1997) defined it as a person's belief that they can successfully complete a particular task. Zimmerman (1995) defined it as the self-evaluation of individuals about their ability to perform a job and succeed.

A principal's sense of competence is the judgment about his abilities to structure a particular course of action to achieve desired results in the school he leads. (Bandura, 1997). Principals are seen as a key agent initiating change by raising expectations for both teachers and students. A promising but largely unexplored way to understand the motivation and behavior of principals is the principals' sense of competence. Self-efficacy is a perceived judgment of one's ability to effect change, which can be seen as an essential characteristic of an effective school leader. Principals may feel competent to lead in certain contexts, but this sense of competence may or may not be transferred to other contexts depending on the perceived similarities of the task (Tschannen-

Moran & Gareis, 2004). Another important factor contributing to the effectiveness of school principals is the level of self-efficacy. Self-efficacy is the principal's belief in his abilities. This belief significantly impacts the leadership and success of school principals (Eberhard, 2013).

Job description of school administrators encompasses managing people, the environment, and the program. This position requires knowledge and skills from a variety of disciplines. The success of school administrators in this process depends on their positive perceptions of their self-efficacy for the task. In this sense, school administrators with high self-efficacy beliefs can be more effective and qualified in the school improvement process. In contrast, a person who avoids complex tasks cannot plan to achieve goals, and people who believe in their capacity to achieve goals are people with low self-efficacy. People with high self-efficacy are those who understand their capacities and plan their activities successfully while people with low self-efficacy are those who cannot fulfill their tasks. As a matter of fact, such administrators are expected to be more effective and successful as their schools can directly affect teachers, students and staff (Bandura, 1982; Bandura, 1988; Bandura 1997; Cobanoglu & Yurek, 2018; Dimmock & Hattie, 1996; Lunenberg & Ornstein, 2013).

Educational institutions must lead many changes and developments. School principals have important roles in the effectiveness and continuity of educational institutions in this process. These roles include directing the employees in line with the school's goals, leading the teachers educationally, and having effective communication skills. While school principals play these roles, they encounter various problems within the institution and are expected to solve them effectively. In this way, the employees of the institution feel the power of the principal and see him as a leader. On the contrary, a school principal who experiences burnout and feels inadequate in many aspects in the institution will benefit neither the institution nor the society. This will also affect the school principals' self-efficacy perceptions. Therefore, it is thought that problem-solving skills, sense of burnout and self-efficacy are extremely important concepts for school principals. The analysis of the literature reveals that the relationship between problem-solving skills, burnout levels and self-efficacy factors has not been analysed sufficiently. For this reason, this study aims to determine the relationship between school principals' problem-solving skills, burnout levels and self-efficacy beliefs. For this purpose, answers to the following questions were sought.

- What is the level of problem-solving skills of school principals?
- What is the level of burnout of school principals ?
- What is the level of self-efficacy beliefs of school principals?
- How is there a relationship between the genders of school principals, problem-solving skills, burnout levels and self-efficacy beliefs?
- How is there a relationship between the educational status of school principals and their problem-solving skills, burnout levels and self-efficacy beliefs?
- How is there a relationship between management experiences and their problem-solving skills, burnout levels and self-efficacy beliefs?
- How is there a relationship between problem-solving skills, burnout levels and self-efficacy beliefs of school principals?

Method

Research Design

This study aims to determine the relationship between school principals' problem-solving skills, burnout levels and self-efficacy beliefs. Quantitative relational design was used in the study.

Sample and Population

The research universe consisted of school principals working in official pre-schools, primary schools, secondary schools and high schools within Balıkesir city center in the 2020-2021 academic year. A total of 224 school principals selected by cluster sampling method among 1108 school principals in the provinces and districts of Balıkesir formed the research sample. The analysis of the demographic characteristics of the school principals participated in the research revealed that 77.7% of the school principals were male and 22.3% were female; 10.7% of them worked at pre-schools, 37.9% at primary school, 30.8% at secondary school and 20.5% at high school level. It was observed that 36.6% of them worked for 1-5 years, 30.8% for 6-10 years, 15.2% for 11-15 years, 8.9% for 16-20 years and 8.5% for 21 or more years.

Data Collection Tools

In order to determine the relationship between the problem-solving skills, burnout levels and self-efficacy beliefs, "The Problem-solving Inventory, developed by Heppner and Peterson (1982) and adapted into Turkish by Şahin, Şahin and Heppner (1993), "School Principals Burnout Scale" developed by Freidman (2002) and adapted into Turkish by ve Özer et al., (2012) and "School Principals' Efficacy Perceptions Scale" developed by Tschannen-Moran and Gareis (2004) and adapted into Turkish by Özer (2013) were used. .

Problem-solving Inventory: The Problem-solving Inventory developed by Heppner and Peterson (1982) and adapted into Turkish by Şahin, Şahin and Heppner (1993) was used to determine school principals' problem-solving skills. The original Problem-solving Inventory consists of 35 questions and is a 6-point Likert scale. Due to the adaptation of the scale to the Turkish language, three items were eliminated from the inventory, bringing the total number of items to 32. The Problem-solving Inventory consists of 3 sub-dimensions: confidence in problem-solving ability, approach-avoidance, and personal control. The researcher administered the inventory to 69 school principals who were not part of the sample group as part of the validity and reliability studyCronbach Alpha reliability coefficient of the inventory was .90, KMO value was .76; Bartlett test 1856.138; df: 595 and p= .000. The Cronbach Alpha reliability coefficients for the sub-dimensions of the Problem-solving Inventory are presented in Table 1.

Tablo 1. Cronbach alpha values of the sub-dimensions of the Problem-solving Inventory

	Dimensions	Cronbach Alpha
Problem-solving Inventory	Problem-solving confidence	.88
	Approachavoidance style	.86
	Personal control	.63

In the next step, confirmatory factor analysis was performed for the "Problem-solving Inventory" and the goodness of fit values obtained as a result of the obtained confirmatory factor analysis (CFA) [$X2= 989.056$; df= 429; $X2/df = 2.30$; RMSEA= .07; CFI= .80; NFI= .70; GFI= .79; AGFI= .74. When the results of the model are evaluated in general, it is seen that the model has an acceptable fit.

School Principals Burnout Scale: The Freidman School Principals Burnout Scale was developed by Freidman (2002) and adapted into Turkish by Özer et al., (2012). School Principals Burnout Scale is a 5-point Likert-type and consists of 20 questions and 3 sub-dimensions: Burnout, Depersonalization and Professional Success. The scale was applied to 69 school principals outside the sample group within the validity and reliability study scope. Cronbach Alpha reliability coefficient of the scale was .91, KMO value was .81; Bartlett test 834,814; df: 190 and p= .000. The Cronbach Alpha reliability coefficients for the sub-dimensions of the School Principals Burnout Scale are presented in Table 2.

Table 2. Cronbach alpha values of the sub-dimensions of the Freidman School Principals Burnout Scale

	Dimensions	Cronbach Alpha
School Principals Burnout Scale	Exhaustion	.81
	Depersonalization	.93
	Personal accomplishment	.75

In the next step, confirmatory factor analysis was performed for the "Freidman School Principals Burnout Scale" and the goodness of fit values obtained as a result of the obtained CFA [$X2= 292,407$; df= 156; $X2/df = 1.874$; RMSEA= .06; CFI= .95; NFI= .89; GFI= .89; AGFI= .85]. When evaluated in general, the model is seen as a good fit.

School Principals' Perceptions of Competence Scale: The Efficacy Perceptions Scale of School Principals, developed by Tschannen-Moran and Gareis (2004), was adapted into Turkish by Özer (2013). It consists of 3 sub-dimensions: Efficacy for Management, Instructional Leadership and Moral Leadership Subscale, and it is a 5-point Likert type scale with 18 questions. The scale was applied to 69 school principals outside the sample group within the validity and reliability study scope. Cronbach Alpha reliability coefficient of the scale was .92, KMO value was .84; Bartlett test 666,988; df: 153 and p= .000. The Cronbach Alpha reliability coefficients for the sub-dimensions of the Efficacy Perceptions Scale of School Principals are presented in Table 3.

Table 3. Cronbach alpha values of the sub-dimensions of the School Principals' Perceptions of Efficacy Scale

	Dimensions	Cronbach Alpha
Efficacy Perceptions Scale of School Principals	Efficacy for Management	.88
	Instructional Leadership	.73
	Moral Leadership Subscale	.77

In the next step, confirmatory factor analysis was performed for the "Freidman School Principals Burnout Scale" and the goodness of fit values obtained as a result of the obtained CFA [X2= 142.268; df= 71; X2/df = 2.004; RMSEA= .06; CFI= .95; NFI= .91; GFI= .92; AGFI= .88]. When evaluated in general, the model is seen as a good fit.

Data Analysis

In the data analysis process, Kolmogorov-Smirnov and Shapiro-Wilk Tests were used to check whether the data showed normal distribution. When the Skewness and Kurtosis values of the data obtained from the Problem-solving Inventory, Freidman School Principals Burnout Scale and School Principals' Perceptions of Efficacy Scale were examined, was observed that the data were normally distributed. The data obtained from the research; T-test, One-factor Analysis of Variance (ANOVA), and structural equation modeling were used.

Results

In the first sub-problem of the research, the answers given by the school principals to the Problem-solving Inventory were analyzed and the results are presented in Table 4.

Table 4. Mean and standard deviations of the problem-solving inventory

Dimensions	n	$\bar{x}$	s
Problem-solving confidence	224	1.96	.63
Approachavoidance style	224	2.17	.63
Personal control	224	2.56	.46
Total	224	2.16	.53

Analysis of the data obtained from Table 4 reveals that the problem-solving skills of school principals are at "mostly" ($\bar{x}$=2.16, s=.53) level. When the perceptions of the school principals on the dimensions constituting their problem-solving skills are examined, school principals Confidence in Problem-solving Ability ($\bar{x}$=1.96, n=.63); Approach-Avoidance ($\bar{x}$=2.17, s=.63) and Personal Control ($\bar{x}$=2.56, s=.46) were at the "mostly" level.

In the second subproblem of the study, the burnout scale responses of the school principals were analyzed, and the results are presented in Table 5.

Table 5. Mean and standard deviations of the burnout scale

Dimensions	n	$\bar{x}$	s
Exhaustion	224	1.71	.61
Depersonalization	224	2.02	.92
Personal accomplishment	224	2.25	.74
Total	224	1.95	.64

Analysis of the data obtained from Table 5 are suggests that school principals' responses to the statements in the burnout scale are at the level of "rarely" ($\bar{x}$=1.95, s=.64). When their perceptions regarding the dimensions, namely Exhaustion, Depersonalization and Professional Achievement constituting the burnout scale are examined, it is found that they never experienced burnout in Exhaustion dimension($\bar{x}$=1.71, s=.61), and rarely experienced burnout in Depersonalization ($\bar{x}$=2.02, s=.92) and Professional Achievement dimensions($\bar{x}$=2.25, s=.74).

In the third sub-problem of the study, the answers given by the school principals to the Efficiency Perceptions Scale were analyzed and the results are presented in Table 6.

Table 6. Mean and standard deviations of the school principals' perceptions of competence scale

Dimensions	n	$\bar{x}$	s
Efficacy for Management	224	4.12	.56
Instructional Leadership	224	4.03	.54
Moral Leadership Subscale	224	4.20	.52
Total	224	4.12	.48

Analysis of the data obtained from Table 6 demonstrate that the school principals' responses to the statements in the Efficiency Perceptions Scale are at the level of "quite a lot" ($\bar{x}$=4.12, s=.48). School principals' perceptions of the dimensions of Efficacy for Management ($\bar{x}$=4.12, s=.56) and Instructional Leadership ($\bar{x}$=4.03, s=.54) were at the "quiet" degree. It was found that their perceptions of the Moral Leadership Subscale ($\bar{x}$=4.20, s=.52) dimension were at the "very" level. In the fourth sub-problem of the study, whether the problem-solving skills, burnout levels and self-efficacy of school principals differ according to the gender variable was examined with the T-Test, and the results are presented in Table 7.

Table 7. The results of the t-test aimed at determining the difference between the problem-solving skills, burnout levels and self-efficacy of school principals according to the gender variable

	Gender	n	x	Sd	*t*	df	*p*
Problem-solving skills	Female	50	2.11	.52	-.783	222	.434
	Male	174	2.17	.54			
Burnout levels	Female	50	2.07	.69	1.432	222	.154
	Male	174	1.92	.62			
Self-efficacy beliefs	Female	50	4.04	.57	-1.357	222	.176
	Male	174	4.14	.45			

Analysis of the data obtained from Table 7 shows that there is no significant difference between the genders of the school principals' and the problem-solving skills (t= -.783; p > .05), burnout levels (t= 1.432; p > .05) and self-efficacy beliefs (t= -1.357; p > .05). In the sixth sub-problem of the study, whether the problem-solving skills, burnout levels and self-efficacy of school principals differ according to the principal's experience variable was examined with the One-Way ANOVA test and the results are presented in Table 8.

Table 8. One-Way ANOVA results to determine the difference of school principals' problem-solving skills, burnout levels and self-efficacy according to the principal's experience variable

	Principal's experience	n	*x*	Sd	F	p
Problem-solving skills	1-5 years	82	2.16	.57		
	6-10 years	69	2.21	.48		
	11-15 years	34	2.18	.62	*.538*	.708
	16-20 years	20	2.11	.52		
	21 years and over	19	2.01	.43		
Burnout levels	1-5 years	82	2.06	.64		
	6-10 years	69	1.80	.56		
	11-15 years	34	1.98	.76	*1.521*	.197
	16-20 years	20	1.96	.71		
	21 years and over	19	1.99	.59		
Self-efficacy beliefs	1-5 years	82	4.08	.41		
	6-10 years	69	4.18	*.44*		
	11-15 years	34	4.04	*.70*	*.754*	.557
	16-20 years	20	4.13	*.52*		
	21 years and over	19	4.18	*.43*		

Analysis of the data obtained from Table 8 shows that there is no significant difference between the managerial experiences of the principals and their problem-solving skills (F= .538; p > .05), burnout levels (F= 1.521; p > .05) and self-efficacy beliefs (F= .754; p > .05).

In the seventh sub-problem of the research, whether the problem-solving skills, burnout levels and self-efficacy of school principals differ according to the school level variable was examined with the One-Way ANOVA test and the results are presented in Table 9.

Table 9. One-Way ANOVA results to determine the difference of school principals' problem-solving skills, burnout levels and self-efficacy according to school level variable

	School level	n	x	Sd	F	p
Problem-solving skills	Pre-school	85	2.09	.60		
	Primary	69	2.23	.59	*1.059*	.368
	Secondary	46	2.14	.52		
	High	24	2.25	.44		
Burnout levels	Pre-school	85	1.88	.62		
	Primary	69	2.08	.68	*1.928*	.126
	Secondary	46	1.98	.65		
	High	24	1.79	.52		
Self-efficacy beliefs	Pre-school	85	4.20	.45		
	Primary	69	4.08	.48	*1.547*	.203
	Secondary	46	4.03	*.56*		
	High	24	4.08	*.41*		

Analysis of the data obtained from Table 9 demonstarates that there is no significant difference between school levels and the problem-solving skills of school principals (F= 1.059; p > .05), burnout levels (F= 1.928; p > .05) and self-efficacy beliefs (F= 1.547; p > .05) .

Finally, the relationship between the problem-solving skills, burnout levels and self-efficacy of school principals was examined using the structural equation model, and the path diagram for the model is shown in Figure 1.
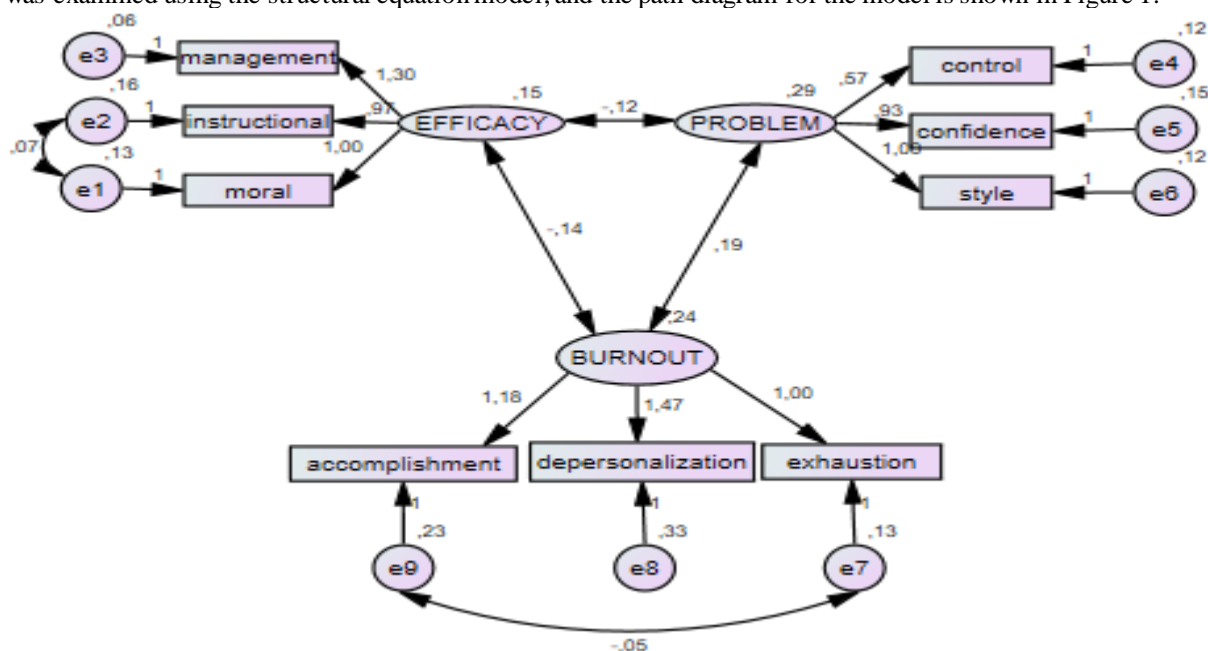

Figure 1. Structural equation model

Figure 1. The structural equation modeling model in which there is a mutual relationship between the decision solving skills, burnout levels and self-efficacy of school principals

The analysis of the model in Figure 1 shows that there is a low and positive relationship between the problem-solving skills and burnout levels (γ= .19) of the school principals. It was also concluded that there is a low and negative correlation between problem-solving skills and self-efficacy beliefs (γ= -0.12), and a low and negative correlation between self-efficacy beliefs and burnout levels (γ= -0.14).

The structural model values of school principals' problem-solving skills, burnout levels and self-efficacy beliefs are shown in Table 10.

Table 10. The Structural Equation Model Results of school principals' problem-solving skills, burnout levels and self-efficacy beliefs

	X^2	df	X^2/df	RMSEA	CFI	GFI	AGFI	NFI
Structural Equation Modeling	49.519	22	2.25	0.07	0.98	0.96	0.91	0.96

According to the path analysis results of the conceptual model in Table 10, the Chi-square fit index of the model (X2= 49.519, df= 22, X2/df= 2.25) was determined to be significant. Other fit indices were found to be RMSEA= .07, CFI= .98, GFI= .96, AGFI= .91, and NFI= .96. It is seen that the model is at a good level in terms of fit values.

Discussion, Conclusion and Recommendations

In the first sub-problem of the research, it is seen that the problem-solving skills of school principals are at a high level. When the school principals' perceptions about the dimensions constituting their problem-solving skills are examined, they stated that their Confidence in Problem-solving Ability, Approach-Avoidance and Personal Control dimensions were at a high level. Today, it is inevitable to encounter some obstacles in the face of rapidly developing technological developments. In order for individuals to overcome these obstacles, they need to know and successfully implement problem-solving methods. The success of individuals is proportional to their ability to effectively solve the problems they encounter. Problem-solving skills of school administrators, who direct and have responsibility for educational activities in educational institutions, affects the education-teaching process and activities directly or indirectly. School administrators should understand the problems of the institution they work in and present effective solutions (Buluç et al., 2011). In this study, it is seen that school principals' problem-solving skills are at a high level. When the previous studies are examined; Akar (2016), Akça and Yaman (2009), Buluç et al., (2011), Güçlü (2003), Karaca and Karaca (2021), Konan (2013) and Kösterelioğlu (2007) reached similar results in their studies. However, Sadıkoğlu (2007), Tokyay (2001), and Üstün and Bozkurt (2000) concluded that school principals have a low level of problem-solving skills.

In the second sub-problem of the research, it was concluded that school principals almost never experienced burnout. When their perceptions of the dimensions constituting the burnout scale are examined, school principals stated that they have never experienced burnout in the dimension of burnout and experienced low levels of burnout in the dimensions of depersonalization and professional achievement. Burnout can occur in any field as well as in a professional sense. Every job has its own difficulties, which can cause fatigue and boredom in the individual from time to time. When these feelings do not interfere with the person's responsibilities, the person can cope with this situation more easily. Unrealistic expectations, when combined with obstacles in achieving goals, complacency, insufficient readiness, and lack of self-confidence, can lead people to burnout (Çınar and Güven, 2019). The burnout experienced in school principals can affect the school's functioning, school climate, organizational commitment, and many similar factors because the roles of school principals are very important in realizing all these factors. As a matter of fact, in this study, it is seen that school principals almost never experienced burnout. Aksu and Baysal (2005) stated that principals experienced burnout in emotional exhaustion and depersonalization dimensions. According to Ellis (1983), Tikkanen et al., (2017), school principals experienced low level of burnout while Aksu and Baysal (2005) stated that school principals have a high level of burnout in the dimension of personal achievement. Dağlı and Gündüz (2008), Daly (1992) and Graf (1996); Özer (2013), on the other hand, reached the conclusion that burnout is experienced at a moderate level.

In the third sub-problem of the research, it was concluded that the school principals' self-efficacy perceptions were at a high level. The perceptions of school principals on the dimensions of Efficacy for Management and Instructional Leadership were high, and their perceptions of the Moral Leadership Subscale dimension were also very high. It was found that school principals with low self-efficacy perceived that they could not control the environment and were less likely to identify appropriate strategies or change unsuccessful ones. When these people face failure, they insist on not changing their behavior, and when they have difficulty, they may try to blame others. School principals with low self-efficacy may not see opportunities, receive support, or adapt. On the contrary, school principals with high self-efficacy do not consider their inability to solve the problems they encounter as a failure. They adjust their personal expectations to suit the circumstances, remain confident and calm, and maintain their sense of humor even in difficult situations (Lyons & Murphy, 1994; Osterman & Sullivan, 1996; Tschannen-Moran & Gareis, 2004), which shows that self-efficacy is an essential factor in ensuring continuity in schools. In the current study, it is seen that the school principals' self-efficacy perceptions are high. When the previos studies are examined; Baltacı (2017b), Bayraktar (2020), Cobanoglu and Yurek

(2018), Işık and Gümüş (2016), İnandı et al., (2015), Karatepe and Uzun (2015), Köybaşı and Dönmez (2017), Okutan and Kahveci (2012) and Özer (2013) reached similar results in their studies. Baltacı (2017a), on the other hand, concluded that school principals' self-efficacy is low.

In the fourth sub-problem of the research, it is seen that there is no significant difference between the problem-solving skills, burnout levels and self-efficacy beliefs of school principals and their gender. The school principal is not an administrator but an orchestra conductor who organizes school activities and designs and shapes the future of individuals and society together with his employees. (Turan, 2018). The school principal needs to be able to solve the problems he encounters in an important task such as leading and managing the school. Many factors affect school principals in performing their duties and solving their problems. The role of school principals is very important in solving the problems faced by interacting successfully with all school stakeholders. Gender factor may also play a role in realizing this role. School principals may need to put a lot of effort into problem-solving. This process may sometimes require working overtime and can be physically exhausting and this may create the perception that male school principals will be more successful. However, in this study, it is stated that gender is not effective in problem-solving skills. When the studies on problem-solving skills are examined; Akça and Yaman (2009), Buluç et al., (2011), Karaca and Karaca (2021), and Tan (2016) reached similar results in their studies.

Today societies are getting more and more complex. Many factors such as changes in social roles, deterioration in interpersonal relations, feeling of loneliness, a competitive work environment, efforts of individuals to prove themselves and high expectations have negative effects on the mental health of employees and this situation causes employees to experience burnout (Dönmez and Güven, 2001). Due to social roles, the efforts of female school principals to fulfill the roles required by school and family life can cause burnout. However, in this study, it was concluded that gender is not effective in experiencing burnout. When the studies on the sense of burnout are examined, Aksu and Baysal (2005), Dönmez and Güneş (2001), Friedman (2002) and Graf (1996) reached similar results in their studies. Ellis (1983) found out that in personal achievement, burnout is higher in men; On the other hand, Izgar (2003) and Ellis (1983) concluded that emotional exhaustion is higher in women.

Many factors that affect the self-efficacy of school principals. One of these factors is gender. It is very important for female school principals to feel competent and ensure the continuity of their self-perception in an important task such as managing the school, which requires them to interact with all stakeholders. In this study, it was concluded that gender is not effective in the perception of self-efficacy. In fact, Bayraktar (2020) stated that women's involvement in business life and their ability to balance their business life and private life over time could explain the lack of difference between the self-efficacy of male and female managers. When the studies conducted with self-efficacy are examined, Bayraktar (2020), Cobanoglu and Yurek (2018), Karahan and Balat (2011), Köybaşı and Dönmez (2017) and Üstüner et al., (2009) have reached similar results in their study. Baltacı (2017b) and Sönmez Genç et al., (2021) concluded in their research that female school principals have a higher level of self-efficacy perception than males.

In the fifth sub-problem of the research, it is seen that there is no significant difference between school principals' problem-solving skills, burnout levels and self-efficacy beliefs and their experience of principalship. Problem-solving skills are very important because people constantly encounter problems in almost every area of life in the developing and rapidly changing social structure. Problem-solving is a complex process in which many cognitive, behavioral, and affective activities are intertwined. Since not all problems are of the same difficulty and complexity, the solution process also differs. A solution can be reached using different strategies such as trial and error, scientific approach, and benefiting from past experiences (Çınar et al., 2009). In other words, the experience of school principals affects their problem-solving skills positively. School principals encounter various problems during their time as principals and strive to solve these problems. It is extremely important for school principals to know how to proceed when faced with similar problems in the future. Despite this situation, the study shows that the experience of principalship is not effective in problem-solving skills. The reason for this situation can be interpreted as follows: school principals can solve the problems they encounter by getting support from other school principals. Ada et al., (2010), Akça and Yaman (2009), Buluç et al., (2011), Graf (1996), Güçlü (2003), and Karaca and Karaca (2021) reached similar results in their studies. Khan et al., (2012) concluded in their study that school principals with higher seniority are more successful in the problem-solving process.

The fact that managers are strongly affected by the emotional demands of the employees and use all their strength to meet these demands can exhaust them emotionally and physically (Dağlı and Gündüz, 2008). It is thought that the school principal who successfully carries out this process will experience burnout less. This is directly proportional to the experience of school principals. However, the current study shows that the

experience of principalship does not have an impact on burnout. When the studies on the sense of burnout are examined, Özer (2013) reached a similar conclusion in his study. Aksu and Baysal (2005), Dönmez and Güneş (2001), and Izgar (2001) concluded that those with low seniority experience more burnout.

As in all organizations, the implementation and success of change in educational organizations is enabled by the participation and support of employees. One of the most important factors influencing employee acceptance of change is self-efficacy beliefs. Individuals with high self-efficacy beliefs are expected to encounter change more naturally (İnandı et al., 2015). School leaders' experiences throughout the school leadership process are expected to influence their self-efficacy beliefs, as school leaders' self-efficacy beliefs contribute to school leadership processes being more effective. It can be said that this situation is related to experience. In the current study, professional experience does not affect school principals' self-efficacy perceptions. When the studies on self-efficacy are examined; Bayraktar (2020), Cobanoglu and Yurek (2018), Demirtaş and Çağlar (2013), Dimmock and Hattie (1996), Gülpınar (2018), Köybaşı and Dönmez (2017), Tschannen-Moran and Gareis (2004) and Sönmez Genç et al., (2021) reached similar results in their study. On the other hand Acat et al., (2011) Baltacı (2017b), Doğu (2016), Kaykı (2019), Gençtürk and Memiş (2010), Say (2005), and Tschannen-Moran and Woolfolk-Hoy (2002) found out that an increase in the seniority of school principals also causes an increase in their self-efficacy. However, Özer (2013) found that among less experienced principals, some had relatively high levels of self-efficacy beliefs.

In the sixth sub-problem of the study, no significant difference was found between school principals' problem-solving skills, burnout levels, self-efficacy beliefs and school levels. Problem-solving skill is one of the important skills that school principals should have. School principals experience various problems at every stage of the education process and try to solve these problems. The presence of problems, the way they arise, and their resolution are likely to be different for each school and each level. The important thing is to be able to solve these problems successfully. Heppner et al. (1985) found that individuals who are unable to solve their problems successfully are insecure and anxious compared to individuals with effective problem-solving skills. They also fail to understand others' expectations and have more emotional problems. Ada et al., (2010), Karaca and Karaca (2021), and Tan (2016) reached similar results in their studies.

All kinds of negative factors that school principals will experience in their schools can affect their burnout, albeit slightly. These negative factors may differ according to the circumstances of time, the developments and the schools' level. As a dynamic and open system, the education system is open to all kinds of external influences. The dynamism of educational organizations can be explained as the ability to adapt themselves to innovations and changes depending on time and circumstances. School principals are also expected to work in dynamic and rapidly changing environments and understand and work in harmony with all stakeholders in this process (Mahfouz, 2018; Uğurlu, 2016). Daly (1992) and Graf (1996) reached similar results in their studies. Friedman (2002), on the other hand, found that middle school principals experience burnout more frequently than primary school principals.

A sense of self-efficacy is an important factor for school principals to be successful in their schools. It is necessary and important that school principals' self-efficacy perceptions should not differ according to school levels. Tschannen-Moran and Gareis (2004) stated that one of the most important factors in motivating principals is the sense of efficacy, and self-efficacy is a perceived judgment of one's ability to influence change, which can be seen as a fundamental characteristic of an effective school leader. When the studies on self-efficacy are examined; Cobanoglu and Yurek (2018), Köybaşı and Dönmez (2017) reached similar results in their study. Unlike the result obtained from this research, Bayraktar (2020) states that administrators working in primary schools have higher self-efficacy perceptions than high school administrators. Similarly, Gülpınar (2018) stated that school administrators working in high schools have lower self-efficacy perceptions than school administrators working in primary and secondary schools. Doğu (2016), on the other hand, concluded that school principals working in primary and high schools have higher self-efficacy perceptions than school principals working in secondary schools.

Finally, in the research, a low level and negative relationship between problem-solving skills and self-efficacy beliefs of the school principals was found. Accordingly, an increase in the problem-solving skills of school principals causes a decrease in their self-efficacy perceptions. Leadership in school management requires first considering the problems realistically and then having some skills to solve them. Real leadership is about confronting the problems courageously and managing them for the benefit of the organization (Bursalıoğlu, 2019). Having problem-solving skills is very important for educational organizations. In the process, school principals deal with various problems that are also independent of each other. It is possible that solving problems will affect the self-efficacy of school principals in a positive way. However, the result obtained in this

research contradicts with the prevous study. The reason for this situation can be explained by the fact that although school principals can solve the problems, they are concerned about not being capable of solving other problems that may arise in the future,

It was concluded that there is a low-level and negative relationship between school principals' self-efficacy beliefs and burnout levels. Accordingly, school principals' self-efficacy beliefs reduce their burnout a little bit. Managers should have high self-efficacy beliefs to solve problems. Low self-efficacy beliefs may cause internalization of failure, behaving formally with employees, and giving more weight to supervision and control. In other words, individuals act according to what they expect to happen and the degree to which they value the result. Expectations are based in part on an individual's ability beliefs. As a result, self-efficacy plays an important role in person's goals based on their perceptions of ability (Celep, 2000; Lovell, 2009). When the studies between self-efficacy beliefs and burnout levels are examined, Federici and Skaalvik (2012) found a negative relationship between principals' self-efficacy and burnout and Özer (2013) concluded that there is a moderate and negative relationship.

It was concluded that there is a low level and positive relationship between the problem-solving skills of school principals and their burnout levels. Based on these results, it can be argued that the increase in the school principals' problem-solving skills also causes an increase in their feelings of burnout. The feeling of burnout is generally accepted as a situation that can affect all employees. Employees in organizations feel exhausted due to their routine work, the intensity of their work and many similar reasons. Experienced burnout will cause low productivity and motivation. Such negative situations experienced by employees will cause the organization not to reach its goals and turn into an inefficient structure. Therefore, it is very important to identify and eliminate the causes of problems that cause employees to experience burnout (Uslu and Acar, 2020). School administrators experiencing burnout are likely to have difficulties in focusing and solving problems. In addition, the existence and continuity of school problems in schools can be seen as an undesirable situation for school principals. Although school principals can solve these problems successfully, dealing with problems and devoting a large part of their time to solving problems may cause an increase in the sense of burnout in school principals, which bears similarities with the results of this study. When the studies between problem-solving skills and burnout levels are examined, Akça and Yaman (2009) concluded that as school principals' perceptions of their problem-solving skills decrease, their emotional exhaustion increases.

In future research, comparisons between private and public-school principals will be possible. In this study, there was a negative correlation between problem-solving skills and low-level self-efficacy beliefs among school principals and a positive correlation between problem-solving skills and low-level burnout. In future studies, interviews can be used to determine the causes of this situation.

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