



Educational Process: International Journal

ISSN 2147– 0901 (Print) Journal homepage: www.edupij.com

EDUCATIONAL PROCESS: INTERNATIONAL JOURNAL
EDUPIJ / VOLUME 2 / ISSUE 1-2 / SPRING-SUMMER~FALL-WINTER / 2013

Relationship Between School Administrators' Anxiety Levels for Authority Use and Burnout Levels

Tugba Hosgorur and Seda Apikoglu

To cite this article: Hosgorur, T., & Apikoglu, S. (2013). Relationship Between School Administrators' Anxiety Levels for Authority Use and Burnout Levels. *Educational Process: International Journal*, 2 (1-2), 19-35.

Tugba Hosgorur, Mugla Sitki Kocman University, Turkey. (e-mail: t.hosgorur@mu.edu.tr)

Seda Apikoglu, Ministry of National Education, Turkey. (e-mail: sedatombu@hotmail.com)

Relationship Between School Administrators' Anxiety Levels for Authority Use and Burnout Levels

TUGBA HOSGORUR and SEDA APIKOGLU

Abstract

This study aims to determine the relationship between school administrators' anxiety levels on authority use, and their burnout levels. Designed using the correlational survey model, participants of this study are 273 primary, middle and secondary school administrators in the province of Mugla, in Turkey. Data was collected using Scale on School Administrators' Anxiety on Authority Use, and the Burnout Scale. Data was analysed using descriptive statistics, t-test, ANOVA, Kruskal Wallis H test, and multiple regression analysis. The findings indicate that school administrators' anxiety level for authority use at medium for personnel affairs dimension, and at low for educational affairs, disciplinary and order, and management dimensions. School administrators' anxiety level for authority use significantly differs as of seniority. Findings related to burnout indicate that school administrators experience emotional exhaustion at a low level and depersonalisation at a very low level, yet they experience a higher level of burnout in terms of personal accomplishment. Results point to significant relationships between burnout level of school administrators and their seniority and area of expertise. The results also point out that administrative affairs dimension of anxiety for authority use is an important predictor of their burnout at depersonalisation dimension, while the personnel affairs dimension of their burnout at personal accomplishment dimension. Dimensions of the anxiety for authority use, as a whole, explain 5.7% of emotional exhaustion level, 5.2% of depersonalisation level, and 4.3% of personal accomplishment level of school administrators.

Keywords: authority, anxiety for authority use, burnout, school administrators.

Introduction

School administrators are individuals with primary responsibility for management and effective use of human and material resources in order to realise the objectives of a school. Administrators use their authority to fulfil this responsibility. Even though it has a legal base, authority may create anxiety for school administrators due to certain problems encountered in performing their duties as managers (Kocak, Yilmaz, & Gokler, 2013). Schools are organisations with a predominant human element by nature, which is why there may well be various complicated and strong factors playing a role in the behaviours and emotions of school administrators (Bursalioglu, 1980, 10). Besides, globalisation, changes in social structure and economy, dynamics of school structures, developments in students' academic achievement, and stakeholders' high expectations from school administrators cause tasks to become more complicated and increased the burden of school administrators' roles (Celikten, 2004; Gunduz & Balyer, 2013). Such factors may result in anxiety experienced by some school administrators in using their authority when performing certain tasks. This anxiety may bring a feeling of burnout that is sometimes defined as a syndrome of this age (Maslach, Schaufeli, & Leiter, 2001, 398).

School administration has an element with a direct impact on the success of all processes in a school, which makes some administrator's emotional characteristics all the more important (Daresh, 1986; Yilmaz & Altinok, 2009). Living conditions shaped by urban life makes it almost impossible for an individual to live above certain standards without a high-quality educational experience. Current conditions of competition in the world require countries to have qualified citizens to survive. In turn, these developments increase the expectations of individuals and societies from education and schools, and ultimately increase the perceived pressure on school administrators. Boyland (2011, 6) states that it is very normal, even for the most effective school administrators, to feel themselves under pressure in an age of increased accountability by schools and increased discontent by society about the schools. This pressure felt by school administrators causes them, from time to time, to be unable to use their authority in decision-making processes as it should be.

Authority is defined to be a 'right' given to administrators to enable them to make decisions on any relevant process, as well as to impress other individuals or a 'power' in the hands of school administrators, according to some (Bursalioglu, 2002; Simsek, 2002). Another outlook to authority differentiates between authority and power, and emphasises that power is to impress other people through enforcement, whereas authority is based on a formal power rather than threat, statement or persuasion methods (Altinkurt & Yilmaz, 2012; Aslanargun, 2009). Nevertheless, school administrators have authority to do their jobs; yet, this does not necessarily mean that they are able to use this authority (Aslanargun, 2009). Not being able to use authority means failure for an organisation to fulfil its functions properly. This increases the importance of free use of authority by school administrators even more. However, school administrators encounter several problems during the course of their performance. Relevant research shows that school administrators experience problems caused by teachers, supervisors, parents, organisational structure and climate, work overload, school budget, auxiliary personal services, physical conditions of the school, and school environment (Aslanargun & Bozkurt, 2012; Demirtas, Ustuner, & Ozer, 2007; Freidman, 2002; Memduhoglu, 2007; Yucel, 2006). In addition, they may tend to avoid using their authority due to several reasons including legal constraints, limited budget and resources, interventions or lack of support by senior management, and criticism received by

teachers or parents on decisions taken or having more responsibilities than authority (Altun, 2013; Ekinçi, 2010; Guler, 2002). All these problems makes school administration as one of the occupations with higher stress levels. Hence, relevant research shows that school administrators suffer from medical illnesses caused by their jobs, they are distressed, and experience burnout (Sahin, 2011; Yildirim, 2011).

Burnout is defined as “a prolonged response to chronic emotional and interpersonal stressors on the job, and is defined by the three dimensions of exhaustion, cynicism, and inefficacy” (Maslach et al., 2001). Burnout is a situation experienced by individuals working in jobs requiring continuous interaction with people (Maslach & Jackson, 1981, 99). In the literature, there are various models used to explain burnout concept. One of the most acknowledged is Maslach’s burnout approach (1982). Maslach (1982) considers burnout as three dimensions: emotional exhaustion, depersonalisation, and personal accomplishment. Emotional exhaustion is the core of exhaustion, and is the most common. Emotional exhaustion happens when individuals experience a decrease in their emotional resources, due to difficult working conditions, and cannot find the strength to perform their jobs (Maslach & Jackson, 1981). Depersonalisation is related to an individual’s trying to deal with the feeling of exhaustion in her/his emotional energy by alienating herself/himself from other people surrounding and treating them as mere objects (Maslach, 1982; Taris, Le Blanc, Schaufeli, & Schreurs, 2005). When one feels emotionally exhausted and puts a barrier with her/his job and other people, this also damages her/his personal effectiveness (Maslach et al., 2001). Personal accomplishment is assumed to decrease, and individual cannot be satisfied with her/his performance anymore (Maslach, 1982).

According to Freidman (2002), a school administrator will feel professionally successful when s/he sees all processes in the school work efficiently in order to achieve the school’s mission. Nonetheless, inefficient functioning of such processes will cause the school administrator to question her/his own managerial and leadership skills, which will lead to a feeling of personal and professional failure. This feeling, unless the individual cannot find proper support, will result in burnout (Freidman, 2002, 229). From this perspective, it is possible for school administrators to experience burnout if they cannot use their authority to efficiently manage relevant processes in the schools. There are several studies in the literature dealing with problems encountered by school administrators about authority use (Altun, 2013; Guler, 2002; Oksum, 2001; Sonmez, 2010; Tanriogen & Yucel, 2007; Yucel, 2006). There are also studies on school administrators’ burnout (Aksu & Baysal, 2005; Aydin, 2002; Demirdis, 2009; Friedman, 2002; Itil, 2007; Izgar, 2000; Karaman, 2009; Keskin Surucuoglu, 2011; Ozdemir, 2009; Ozyurek, Gumus, & Dogan, 2012; Sonmez, 2010; Yildirim, 2009). Nevertheless, there is only one study examining the relationship between school administrators’ anxiety for authority use and burnout experienced by them (Sonmez, 2010). This study is designed to address this need, and aims to determine the relationship between school administrators’ anxiety for authority use and their burnout levels. Hence, it seeks answers to the following research questions:

- What are school administrators’ opinions about their anxiety for authority use and burnout levels?
- Do school administrators’ opinions about their anxiety for authority use and burnout levels vary according to gender, school type, school location, area of expertise, professional seniority and management seniority?

- To what extent does the school administrators' anxiety for authority use predict their burnout level?

Methodology

Investigating the relationship between school administrators' anxiety for authority use and their burnout levels, this study is designed based on correlational survey model. The population of the study is comprised of 908 school administrators of primary, middle and high schools in the Mugla province of Turkey. Sample was selected using disproportionate cluster sampling technique. Representative sample size was calculated to be a minimum of 270 for a 95% confidence level. Considering possible low return rates, scales were delivered to 350 school administrators, and a total of 310 school administrators returned the scale. After an examination of the returned scales, missing data was omitted, and 273 scales were included in the data analysis.

Data from returned scales show that 30.8% of the school administrators (n=84) are female, and 69.2% (n=189) are male. Of participant school administrators, 31.5% (n=86) work in primary schools, 28.2% (n=77) in middle schools, 18.7% (n=51) in classical (general) high schools, and 21.6% (n=59) in vocational high schools. A dissemination of the participants as of areas of expertise shows that 30.8% (n=84) are classroom teachers, 56.4% (n=154) are subject matter experts, and 12.8% (n=35) are vocational teachers. Location data shows that 24.2% (n=66) work in the provincial centre, 54.9% (n=150) in town centres, and 20.9% (n=57) in villages and other vicinities. In terms of seniority, 9.9% (n=27) of school administrators have 10 years or less work experience, 45.8% (n=125) have 11-20 years, and 44.3% (n=121) 21 years and more. As for management experience, data shows that 47.3% of the school administrators (n=129) have 5 years or less management experience, while 18.7% (n=51) have 5-10 years, and 34.1% (n=93) 11 years or more.

School administrators' anxiety levels for authority use were measured by the "Scale on School Administrators' Anxiety for Authority Use" developed by Kocak, Yilmaz & Gokler (2013). The scale is comprised of 36 items under four dimensions: administrative affairs (20 items), personnel affairs (8 items), educational affairs (4 items), and school order/disciplinary affairs (4 items). All items have Likert-type answer options, from "0 – I'm never anxious" to "3 – I'm very anxious". There are no reverse-scored items in the scale. It is possible to have a total score from the scale. The higher scores indicate a higher anxiety level for school administrators for authority use. It is seen that load values of the factors vary between .56 and .84, whereas total correlation of items vary between .76 and .92. +factor structure explains 64% of the total variance. Confirmatory factor analysis of the scale indicate goodness of fit values as: $\chi^2 / sd = 1.74$, GFI= 0.73, AGFI= 0.69, RMSEA= 1.74, CFI= 0.89, and NNFI= 0.88. Reliability analysis of the scale shows an internal consistence value of .97. Cronbach Alfa coefficient values calculated for internal consistency of the scale are calculated as .96 for administrative affairs, .90 for personnel affairs, .82 for educational affairs, and .81 for school order and disciplinary affairs. Cronbach Alfa coefficient was re-calculated in this study, and resulted in .92 for administrative affairs, .69 for personnel affairs, .80 for educational affairs, and .67 for school order and disciplinary affairs.

The other data collection tool used is Maslach's Burnout Scale, which was developed by Maslach and Jackson (1981), and adapted into Turkish by Ergin (1992). The scale includes 22 Likert-type items responded between "1 – Never" and "4 – Always". The scale is comprised of three dimensions: emotional exhaustion (9 items), depersonalisation (5 items), and

personal accomplishment (8 items). It is not possible to receive a total score from the scale. Scoring is performed separately for each dimension. Scores of the three dimensions of the Maslach Burnout Scale are evaluated between a score of 0-4 for each item. Emotional exhaustion and depersonalisation dimensions involve negative items, whereas personal accomplishment dimension involve positive items. Items under the personal accomplishment items are reverse-scored. It is accepted that higher is the score received from all dimensions, higher is the burnout level. Scores obtained from the scale are explained as: 0.00-0.79 (very low), 0.80-1.59 (low), 1.60-2.39 (moderate), 2.40-3.19 (high), and 3.20-4.00 (very high). Cronbach Alfa coefficients are, respectively, .83 for emotional exhaustion, .71 for depersonalisation, and .72 for personal accomplishment. Cronbach Alfa coefficient was re-calculated in this study, and resulted in .85 for emotional exhaustion, .72 for depersonalisation, and .82 for personal accomplishment.

Data was analysed using descriptive statistics, t-test, one-way analysis of variance (ANOVA), and Kruskal Wallis H test for variables with unequal distribution of groups. Tukey and Mann-Whitney U tests were used to determine source of difference for significant F values. Pearson correlation coefficient was used to determine the relationship between school administrators' anxiety for authority use and their burnout level. Multiple regression analysis was used to determine whether school administrators' anxiety for authority use is a significant predictor for their burnout level. An absolute value for correlation coefficient between 0.70-1.00 is considered to indicate a high-level relationship, between 0.69-0.30 a medium-level, and between 0.29-0.00 a low-level relationship (Buyukozturk, 2009).

Findings

This section includes findings as to anxiety level of school administrators for authority use, and their burnout levels. Following the comparison of anxiety levels for authority use and burnout levels using various variables, it elaborates on how and to what extent the school administrators' anxiety level for authority use predicts their burnout level. Findings obtained from data analysis show that, among all dimensions of anxiety for authority use, schools administrators experience anxiety mostly for personnel affairs dimension (M=1.51, SD=.91). This is followed by educational affairs (M=1.37, SD=.98), school order and disciplinary affairs (M=1.15, SD=1.18), and administrative affairs (M=1.13, SD=.76). Based on the rating in the scale, it is seen that school administrators are anxious about personnel affairs at a medium level, while they are anxious about other dimension at a lower level.

Results of t-test and one-way analysis of variance conducted to determine anxiety levels of school administrators for authority use show that anxiety levels of school administrators for authority use do not reveal a significant difference according to the following variables: *gender* [AA $t(271)=.88$; $p>.05$], [PA $t(271)=1.66$; $p>.05$], [EA $t(271)=.69$; $p>.05$], [ODA $t(271)=1.06$; $p>.05$]; *school type* [AA $F(3-269)=.09$; $p>.05$], [PA $F(3-269)=1.54$; $p>.05$], [EA $F(3-269)=.52$; $p>.05$], [ODA $F(3-269)=.48$; $p>.05$]; *location of school* [AA $F(2-270)=.16$; $p>.05$], [PA $F(2-270)=.31$; $p>.05$], [EA $F(2-270)=.03$; $p>.05$], [ODA $F(2-270)=.09$; $p>.05$], and *seniority in management* [AA $F(2-270)=2.15$; $p>.05$], [PA $F(2-270)=.11$; $p>.05$], [EA $F(2-270)=2.81$; $p>.05$], [ODA $F(2-270)=2.49$; $p>.05$]. Even though the difference is not significant, female administrators (M=1.07, SD=.72) feel less anxiety at *administrative affairs dimension* compared to male administrators (M=1.16, SD=.77). At this dimension, based on school type, most anxiety is experienced by administrators of general high schools (M=1.18, SD=.66), followed by administrators of vocational high schools (M=1.14, SD=.70), then middle schools

($M=1.13$, $SD=.76$), and primary schools ($M=1.11$, $SD=.86$). At the administrative affairs dimension, based on location of schools, most anxiety is experienced by administrators working in schools located in villages and vicinities ($M=1.18$, $SD=.77$), followed by administrators working in district centres ($M=1.13$, $SD=.77$), and those working in provincial centres ($M=1.10$, $SD=.72$). At the administrative affairs dimension, based on seniority in management, most anxiety is experienced by administrators with 5 years or less experience ($M=1.21$, $SD=.72$), followed by administrators with 6-10 years of experience ($M=1.17$, $SD=.77$), and those with 11 years or more experience in management ($M=1.00$, $SD=.79$).

At the *personnel affairs dimension*, female administrators ($M=1.37$, $SD=.89$) feel less anxiety compared to male administrators ($M=1.57$, $SD=.91$). At this dimension, based on school type, most anxiety is experienced by administrators of vocational high schools ($M=1.65$, $SD=.93$), followed by administrators of general high schools ($M=1.60$, $SD=.69$), of middle schools ($M=1.53$, $SD=1.01$), and primary schools ($M=1.35$, $SD=.80$). At the personnel affairs dimension, based on location of schools, the most anxiety is experienced by administrators working in provincial centres ($M=1.57$, $SD=1.12$), followed by administrators working in district centres ($M=1.51$, $SD=.86$), and those working in villages and vicinities ($M=1.44$, $SD=.76$). At the personnel affairs dimension, based on seniority in management, most anxiety is experienced by administrators with 6-10 years of experience ($M=1.57$, $SD=1.01$), followed by administrators with 5 years or less experience ($M=1.51$, $SD=.96$), and those with 11 years of more experience in management ($M=1.49$, $SD=.78$).

At the *educational affairs dimension*, female administrators ($M=1.30$, $SD=.79$) feel less anxiety compared to male administrators ($M=1.39$, $SD=1.05$). At this dimension, based on school type, most anxiety is experienced by administrators of vocational high schools ($M=1.44$, $SD=.82$), followed by administrators of middle schools ($M=1.43$, $SD=1.29$), general high schools ($M=1.36$, $SD=.75$), and primary schools ($M=1.26$, $SD=.87$). At the educational affairs dimension, based on location of schools, most anxiety is experienced by administrators working in provincial centres ($M=1.39$, $SD=.79$), followed by administrators working in villages and vicinities ($M=1.38$, $SD=.82$), and those working in district centres ($M=1.35$, $SD=1.10$). At the educational affairs dimension, based on seniority in management, most anxiety is experienced by administrators with 5 years or less experience ($M=1.49$, $SD=1.12$), followed by administrators with 6-10 years of experience ($M=1.38$, $SD=.82$), and those with 11 years of more experience in management ($M=1.18$, $SD=.81$).

At the *school order and disciplinary affairs dimension*, female administrators ($M=1.04$, $SD=.84$) feel less anxiety compared to male administrators ($M=1.20$, $SD=1.30$). At this dimension, based on school type, most anxiety is experienced by administrators of vocational high schools ($M=1.26$, $SD=1.63$), followed by administrators of general high schools ($M=1.25$, $SD=.70$), middle schools ($M=1.11$, $SD=1.36$), and primary schools ($M=1.06$, $SD=.84$). At the order and disciplinary affairs dimension, based on location of schools, most anxiety is experienced by administrators working in district centres ($M=1.18$, $SD=1.42$), followed by administrators working in villages and vicinities ($M=1.13$, $SD=.85$), and those working in provincial centres ($M=1.11$, $SD=.79$). At the order and disciplinary affairs dimension, based on seniority in management, most anxiety is experienced by administrators with 5 years or less experience ($M=1.28$, $SD=1.18$), followed by administrators with 6-10 years of experience ($M=1.23$, $SD=1.70$), and those with 11 years of more experience in management ($M=.93$, $SD=.75$).

Kruskal Wallis H test was used to determine whether the anxiety levels of school administrators for authority use differ according to area of expertise, since groups have not shown a normal distribution. Test results have shown that school administrators' anxiety levels for authority use do not significantly differ according to area of expertise [AA $\chi^2(2)=.55$; $p>0.05$], [PA $\chi^2(2)=4.17$; $p>0.05$], [EA $\chi^2(2)=.65$; $p>0.05$], [ODA $\chi^2(2)=.04$; $p>0.05$]. Even though the difference is not significant, at the *administrative affairs dimension*, most anxiety is experienced by schools administrators who are subject matter teachers (M=139.79, N=154). This is followed by school administrators that are originally vocational teachers (M=137.19, N=35) and classroom teachers (M=131.82, N=84). At the personnel affairs dimension, schools administrators that are originally vocational teachers experience the highest level of anxiety (M=152.24, N=35), followed by school administrators who are originally subject matter teachers (M=140.93, N=154), and classroom teachers (M=123.44, N=84). Similarly, at educational affairs dimension, schools administrators that are originally vocational teachers experience the highest level of anxiety (M=142.99, N=35), followed by school administrators who are originally subject matter teachers (M=138.56, N=154), and classroom teachers (M=131.64, N=84). At the order and disciplinary affairs dimension, schools administrators that are originally subject matter teachers experience the highest level of anxiety (M=137.71, N=154), followed by school administrators who were originally classroom teachers (M=136.46, N=84), and vocational teachers (M=135.16, N=35).

Kruskal Wallis H test was used to determine whether anxiety level of school administrators for authority use differ according to seniority, since groups have not shown a normal distribution. Test results have shown that school administrators' anxiety levels for authority use do not significantly differ according to seniority at personnel affairs dimension [$\chi^2(2)=.67$; $p>0.05$], yet significantly differ at administrative affairs [$\chi^2(2)=11.25$; $p<0.05$], educational affairs [$\chi^2(2)=10.65$; $p<0.05$], and order and disciplinary affairs [$\chi^2(2)=9.29$; $p<0.05$] dimensions. Results of Mann-Whitney U test, conducted to find out the source of this difference, have shown that this significant difference at these three levels are between school administrators with 11-20 years of work experience and those with 21 years and more work experience. Accordingly, it was seen that, school administrators with 11-20 years of work experience (AA M=152.60, N=125), (EA M=151.34, N=125), (ODA M=151.68, N=125) experienced more anxiety compared to those with 21 years or more work experience (AA M=119.23, N=121), (EA M=119.62, N=121) (ODA M=121.20, N=121) at educational affairs and order and disciplinary affairs dimensions.

Data obtained from the burnout scale shows that school administrators mostly experience burnout at personal accomplishment dimension (M=2.45, SD=.91). This is followed by emotional exhaustion (M=1.36, SD=.72), and depersonalisation (M=.93, SD=.69) dimensions. No significant difference has been found between schools administrators' gender and their burnout level [EE $t(271)=1.12$; $p>0.05$], [D. $t(271)=.24$; $p>0.05$], [Pac $t(271)=.69$; $p>0.05$]. Even though this difference is not significant, for all three dimensions, female administrators have a lower burnout level (EE M=1.29, SD=.60), (D. M=.91, SD=.64), (Pac M=2.39, SD=.94) compared to male administrators (EE M=1.39, SD=.77), (D. M=.94, SD=.72), (Pac M=2.47, SD=.90). There is also no significant difference between school administrators' burnout level as of school type [EE $F(3-269)=1.29$; $p>0.05$], [D. $F(3-269)=1.45$; $p>0.05$], [Pac $F(3-269)=.62$; $p>0.05$]. Even though the difference is not significant, school administrators working in vocational high schools have the highest level of burnout at emotional exhaustion dimension (M=1.50, SD=.74). They are followed by schools

administrators working in middle schools ($M=1.37$, $SD=.77$), in classical high schools ($M=1.36$, $SD=.67$), and in primary schools ($M=1.26$, $SD=.69$). At the depersonalisation dimension, school administrators working in vocational high schools ($M=1.00$, $SD=.72$) and in middle schools ($M=1.00$, $SD=.77$) have the highest burnout level. They are followed by school administrators working in classical high schools ($M=.94$, $SD=.58$) and in primary schools ($M=.80$, $SD=.65$). School administrators working in classical high schools experience the highest level of burnout at personal accomplishment dimension ($M=2.59$, $SD=.1.01$), followed by those working in vocational high schools ($M=2.45$, $SD=.89$), in middle schools ($M=2.43$, $SD=.88$), and in primary schools ($M=2.37$, $SD=.90$).

School location is another variable where no significant difference has been found for burnout levels of school administrators [EE $F(2-270)=2.54$; $p>.05$], [D. $F(2-270)=.68$; $p>.05$], [PAC $F(2-270)=.91$; $p>.05$]. Even though the difference is not significant, school administrators working in district centres have the highest level of burnout at emotional exhaustion dimension ($M=1.45$, $SD=.77$). They are followed by schools administrators working in villages and vicinities ($M=1.28$, $SD=.71$), and in provincial centres ($M=1.24$, $SD=.59$). At the depersonalisation dimension, school administrators working in district centres ($M=.96$, $SD=.71$) have the highest level of burnout. They are followed by school administrators working in provincial centres ($M=.94$, $SD=.72$) and in villages and vicinities ($M=.83$, $SD=.62$). As in the other two dimensions, school administrators working in district centres experience the highest level of burnout at personal accomplishment dimension ($M=2.50$, $SD=.93$), followed by those working in villages and vicinities ($M=2.44$, $SD=.84$), and in provincial centres ($M=2.32$, $SD=.92$).

Burnout level of school administrators does not show a significant difference according to seniority in management at emotional exhaustion [$F(2-270)=2.07$; $p>.05$] and personal accomplishment [$F(2-270)=.54$; $p>.05$] dimensions, yet indicates a significant difference at the depersonalisation [$F(2-270)=5.60$; $p<.05$] dimension. Results of Tukey test conducted to find out the source of such differences show that depersonalisation experienced by school administrators with 6-10 years of management experience ($M=1.21$, $SD=.72$) is significantly higher than of those with 5 years and less management experience ($M=.89$, $SD=.62$) and those with 11 years and more management experience ($M=.83$, $SD=.74$). Even though such differences are not significant, school administrators with 6-10 years of management experience have the highest burnout level at emotional exhaustion dimension ($M=1.54$, $SD=.79$), followed by those with 11 years and more management experience ($M=1.36$, $SD=.77$), and those with 5 years and less management experience ($M=1.30$, $SD=.65$) respectively. At the personal accomplishment dimension, on the other hand, school administrators with 11 years and more management experience have the highest burnout level ($M=2.52$, $SD=.98$), followed by those with 5 years and less management experience ($M=2.43$, $SD=.83$) and those with 6-10 years of management experience ($M=2.36$, $SD=.97$).

Kruskal Wallis H test was used to determine whether burnout level of school administrators differ according to area of expertise, since groups have not shown a normal distribution. Test results have shown significant differences at the depersonalisation dimension on the basis of area of expertise variable [$\chi^2(2)=6.97$; $p<0.05$]. Results of Mann-Whitney U test conducted to find out the source of this difference have shown that burnout level of school administrators who are originally subject matter teachers ($M=147.96$, $N=154$) is significantly different than the burnout level of those who were originally classroom teachers ($M=124.21$, $N=84$) and vocational teachers ($M=119.47$, $N=35$). Although burnout

level of school administrators does not indicate a significant difference, in terms of area of expertise, at emotional exhaustion [$\chi^2(2)=4.08$; $p>0.05$] and personal accomplishment [$\chi^2(2)=1.17$; $p>0.05$] dimensions, school administrators with highest burnout level at emotional exhaustion dimension are subject matter teachers ($M=145.47$, $N=154$), followed by those who are originally vocational teachers ($M=127.03$, $N=35$) and classroom teachers ($M=125.63$, $N=84$). At the personal accomplishment level, on the other hand, school administrators with highest burnout level at the emotional exhaustion dimension are vocational teachers ($M=143.00$, $N=35$), followed by those who were originally subject matter teachers ($M=139.78$, $N=154$) and classroom teachers ($M=129.41$, $N=84$).

Kruskal Wallis H test, used to determine whether burnout level of school administrators differ according to seniority since groups have not shown a normal distribution, has not indicated any significant difference according to seniority [EE $\chi^2(2)=.16$; $p>0.05$], [D. $\chi^2(2)=1.78$; $p>0.05$], [Pac $\chi^2(2)=2.00$; $p>0.05$]. Even though the differences are not significant, school administrators with 21 years and more work experience have the highest burnout level at the emotional exhaustion dimension ($M=138.21$, $N=121$), followed by those with 11-20 years of work experience ($M=137.00$, $N=125$), and those with 10 years or less work experience ($M=131.57$, $N=27$). At the depersonalisation dimension, school administrators with 11-20 years of work experience have the highest burnout level ($M=143.71$, $N=125$), followed by those with 21 years and more work experience ($M=132.29$, $N=121$), and those with 10 years and less work experience ($M=127.04$, $N=27$). School administrators with 10 years and less work experience have the highest burnout level at personal accomplishment dimension ($M=145.11$, $N=27$). They are followed by school administrators with 21 years and more work experience ($M=142.74$, $N=121$), and those with 11-20 years of work experience ($M=129.70$, $N=125$).

Table 1. Results of multiple regression analysis for the prediction of emotional exhaustion level

	B	Standard error	β	t	p	Zero-order	Partial
Constant	1.101	.087	-	12.62	.00	-	-
1. Administrative affairs	.144	.099	.151	1.46	.15	.21	.09
2. Personnel affairs	.094	.065	.118	1.46	.15	.20	.09
3. Educational affairs	-.084	.075	-.114	-1.13	.26	.14	-.07
4. Order-disciplinary affairs	.063	.053	.102	1.18	.24	.17	.07
R=0.24; R²=0.057	$F_{(4-468)}=4.04$, $p=0.00$						

According to Table 1, there are low and positive relationships between the emotional exhaustion dimension of burnout and administrative affairs ($r=0.21$), personnel affairs ($r=0.20$), educational affairs ($r=0.14$), and order-disciplinary affairs ($r=0.17$) dimensions of the anxiety for authority use. Analysis does not indicate a significant relationship between emotional exhaustion and anxiety for authority use on the basis of other variables. Dimensions of anxiety for authority use, as a whole, provides a low, but significant relationship with emotional exhaustion levels of school administrators ($R=0.24$, $p<0.01$). According to standardised regression coefficient (β), relative order of importance of predictor variables on emotional exhaustion levels of school administrators is as follows:

administrative affairs, personnel affairs, educational affairs, and order-disciplinary affairs. A review of t-test results of the significance of regression coefficients, it is seen that none of the dimensions of level of anxiety for authority use is an important predictor of burnout level of school administrators at emotional exhaustion dimension. Dimensions of the level of anxiety for authority use, as a whole, explains 5.7% of the emotional exhaustion level of the school administrators. According to obtained data, regression equation of emotional exhaustion dimension is:

Emotional exhaustion = 1.101 +.144 Administrative affairs + .094 Personnel affairs -.084 Educational affairs +.063 Order-disciplinary affairs.

Table 2. Results of multiple regression analysis for the prediction of depersonalisation level

	B	Standard error	β	t	p	Zero-order	Partial
Constant	.722	.084	-	8.60	.00	-	-
1. Administrative affairs	.264	.095	.289	2.79	.01	.22	.17
2. Personnel affairs	-.008	.062	-.010	-.13	.90	.14	-.01
3. Educational affairs	-.060	.072	-.084	-.83	.41	.13	-.05
4. Order-disciplinary affairs	.001	.051	.001	.02	.99	.12	.00
R=0.23; R²=0.052		F₍₄₋₄₆₈₎=3.65, p= 0.00					

According to Table 2, there are low and positive relationships between depersonalisation dimension of burnout and administrative affairs ($r=0.22$), personnel affairs ($r=0.14$), educational affairs ($r=0.13$), and order-disciplinary affairs ($r=0.12$) dimensions of the anxiety for authority use. A review of other variables indicate a low, parallel relationship between depersonalisation and administrative affairs ($r=.17$). Dimensions of anxiety for authority use, as a whole, provides a low, but significant relationship with depersonalisation levels of school administrators ($R=0.23$, $p<0.01$). According to standardised regression coefficient (β), relative order of importance of predictor variables on depersonalisation levels of school administrators is as follows: administrative affairs, educational affairs, personnel affairs, and order-disciplinary affairs. A review of t-test results of the significance of regression coefficients, it is seen that only administrative affairs dimension of the level of anxiety for authority use is an important predictor of burnout level of school administrators at depersonalisation dimension. Dimensions of the level of anxiety for authority use, as a whole, explains 5.2% of the depersonalisation level of the school administrators. According to obtained data, regression equation of depersonalisation dimension is:

Depersonalisation = .722 +.264 Administrative affairs - .008 Personnel affairs -.060 Educational affairs +.001 Order-disciplinary affairs.

Table 3. Results of multiple regression analysis for the prediction of personal accomplishment level

	B	Standard error	β	t	p	Zero-order	Partial
Constant	2.219	.111	-	20.08	.00	-	-
1. Administrative affairs	-.106	.125	-.089	-.85	.39	.05	-.05
2. Personnel affairs	.234	.082	.234	2.86	.00	.17	.17
3. Educational affairs	.080	.095	.086	.85	.40	.06	.05
4. Order-disciplinary affairs	-.101	.067	-.131	-1.49	.14	-.03	-.09
R=0.21; R²=0.043		F₍₄₋₄₆₈₎=3.03, p= 0.01					

According to Table 3, there is a low and positive relationship between personal accomplishment dimension of burnout and personnel affairs ($r=0.17$) dimension of the anxiety for authority use. No significant relationships have been found with administrative affairs, educational affairs, and order-disciplinary affairs dimensions. A review of other variables indicate a low, parallel relationship between personal accomplishment dimension of burnout and personnel affairs ($r=.17$). Dimensions of anxiety for authority use, as a whole, provides a low, but significant relationship with personal accomplishment levels of school administrators ($R=0.21$, $p<0.05$). According to standardised regression coefficient (β), relative order of importance of predictor variables on personal accomplishment levels of school administrators is as follows: personnel affairs, administrative affairs, order-disciplinary affairs, and educational affairs. A review of t-test results of the significance of regression coefficients, it is seen that only administrative affairs dimension of the level of anxiety for authority use is an important predictor of burnout level of school administrators at personal accomplishment dimension. Dimensions of the level of anxiety for authority use, as a whole, explains 4.3% of the personal accomplishment level of the school administrators. According to obtained data, regression equation of depersonalisation dimension is: Personal accomplishment = 2.219 -.106 Administrative affairs + .234 Personnel affairs +.080 Educational affairs -.101 Order-disciplinary affairs.

Conclusion and Discussion

This study aimed to reveal the relationship between school administrators' anxiety for authority use and school administrators' burnout. Besides, it also targeted to determine whether school administrators' level of anxiety for authority use and burnout differ according to gender, school type, location, seniority in job, seniority in management, and area of expertise variables. The study also investigated to what extent school administrators' anxiety for authority use did predict the burnout feeling. The following section includes results from the research findings, and their interpretation.

Research findings indicate that school administrators experience anxiety about using authority mostly in processes related to school personnel. This is followed by educational processes, and school's order-disciplinary processes. School administrators experience anxiety least about administrative processes. Based on these findings, it is possible to say that human resources is the main element that influence school administrators in performing their job. Obtained results may also be interpreted as school administrators

perceive school's human resources as the most effective pressure group. That all activities in schools performed directly by the school employees may cause school administrators to feel primarily dependent upon school personnel in making the school efficient. Educational affairs and order-disciplinary affairs follow personnel affairs in terms of anxiety level, which may indicate that students, and accordingly parents and society are the other factors putting pressure on school administrators. School administrators experience the least anxiety with administrative processes; this may be caused by the fact that the responsibility of this process is only relevant for themselves.

In their study on problems experienced by primary school administrators, Tanriogen and Yucel (2007) found out that school administrators experienced medium-level problems in authority use. In a study that assessed authority use competencies of primary school administrators on the basis of opinions from teachers and primary education inspectors, Oksum (2001) revealed that teachers considered school administrators "very" competent in personnel affairs and school management dimensions, while school inspectors considered them "average". Teachers considered school administrators "very" competent at educational and student affairs dimensions, whereas inspectors considered them "not very" competent. In their study about competencies of school administrators, Agaoglu, Altinkurt, Yilmaz, & Karakose (2012), concluded that school administrators considered themselves as competed mostly for protecting legal rights of their employees. According to the results of these research studies in the literature, school administrators consider themselves competent about personnel affairs for which they have highest anxiety level (Agaoglu et al., 2012) and that they are perceived by teachers and inspectors as mainly competent (Oksum, 2001). This may be because they wish to conduct personnel affairs, for which they are most anxious, in a more diligent manner.

Anxiety level of school administrators for authority use do not indicate significant differences as of gender, school type, location, seniority in job, seniority in management, and area of expertise. In a study by Sonmez (2010), school administrators' level of anxiety for authority use did not also differ in terms of seniority in management, did differ merely at student affairs dimension for gender, and showed no significant differences for other dimensions. Anxiety experienced by female administrators at student affairs level was found to be higher compared to male administrators.

The study found significant relationships between school administrators' anxiety level for authority use and their seniority. According to the findings, anxiety experienced by school administrators with 11-20 years of work experience was significantly higher than that of school administrators with 21 years or more work experience at administrative affairs, educational affairs, and order-disciplinary affairs. This may be a result of the fact that school administrators with 21 years or more work experience are in the latter phase of their professional working life, and they may feel more secure since they are closer to retirement. Having an alternative such as retirement may make them more confident when they encounter a problem in performing their job, which may result in less anxiety.

Findings from the burnout scale indicate that school administrators mostly suffer from personal accomplishment dimension of burnout. School administrators perceive themselves highly inefficient in terms of accomplishment. Nonetheless, they experience emotional exhaustion at low levels, and depersonalisation at very low levels. A study by Itil (2007) also resulted in medium-level burnout at personal accomplishment dimension, and low-level burnout at emotional exhaustion and depersonalisation dimensions. Besides, Keskin

Surucuoglu (2011) indicated low-level burnout at emotional exhaustion and personal accomplishment dimensions and very low-level burnout at depersonalisation dimension; and Demirdis (2009) and Ozdemir (2009) pointed out that the school administrator's experienced low-level burnout for all three dimensions. Results of this study are significant, particularly for personal accomplishment. Nevertheless, despite school administrators perceive themselves as incompetent in their jobs, this feeling has not brought an emotional exhaustion or depersonalisation at the same level.

Burnout level of school administrators does not indicate significant differences according to gender, school type, location, seniority in job, seniority in management, and area of expertise. Results of the study are in parallel with those of Aksu and Baysal (2005), Aydin (2002), Itil (2007), Karaman (2009), Keskin Surucuoglu (2011), Ozyurek et al. (2012), and Sonmez (2010), according to *gender* variable; of Itil (2007), Ozdemir (2009) according to *seniority in profession* variable; and of Karaman (2009) according to *school type* variable. No study was found out in the literature taking location of school as a variable as in this current study. Izgar (2000) indicated a significant difference only at personal accomplishment dimension for *gender*, and concluded that female administrators experienced more burnout than male administrators. For *school type*, Ozdemir (2009) found a significant difference with school administrators' burnout only at personal accomplishment dimension while Keskin Surucuoglu (2011) only with depersonalisation dimension. Both studies concluded that burnout experienced by primary school administrators were lower than those working in high schools. Izgar (2000) indicated a significant relationship with personal accomplishment dimension for *seniority in profession*, and stated that school administrators with 5 years or less management experience experienced higher levels of burnout compared to others.

School administrators' burnout level show significant difference according to seniority in management variable at depersonalisation dimension. Aksu and Baysal (2005), Aydin (2002), and Itil (2007) did not indicate significant difference for seniority in management variable at depersonalisation dimension. Nevertheless, Izgar (2000) found the burnout level of school administrators with 11-15 years of management experience at depersonalisation dimension was significantly higher than other groups. Ozdemir (2009) found that school administrators with 22 years or more management experienced significantly lower levels of burnout at depersonalisation dimension. Yildirim (2009) found out that depersonalisation experienced by school administrators with 1-5 years of management experience was significantly more than that experienced by school administrators with 16 years or more management experience. Sonmez (2010) concluded that depersonalisation experienced by school administrators with 10-20 years of management experience was significantly higher than the other groups. Keskin Surucuoglu (2011) also indicated significant differences at depersonalisation dimension in terms of seniority in management, and revealed that school administrators with 5 years of less management experience felt more depersonalisation compared to school administrators with 21-25 years of management experience. According to the results of this study, school administrators with 6-10 years of management experience feel depersonalisation deeper than those with 5 years or less and 11 years and more management experience. Even though differences are not significant, school administrators with 6-10 years of management experience have the highest burnout level at emotional exhaustion dimension, and the lowest burnout level at personal accomplishment dimension. An evaluation of the results in the light of other burnout dimensions shows that although school administrators with 6-10 years of management experience perceive themselves as

more successful, they feel emotionally exhausted and oblivious to their job. Based on these findings, certain initiatives may be introduced for school administrators, who have completed their first five years in management, to make them competent about stress management if they wish to continue managerial duties.

School administrators' burnout level show significant differences according to area of expertise variable at depersonalisation dimension. According to results from the study, depersonalisation level of school administrators who were originally subject matter teachers is significantly higher than of those who were originally vocational teachers or classroom teachers. Izgar (2000) found out that school administrators' burnout level show significant difference according to area of expertise variable only at emotional exhaustion dimension. According to Izgar (2000), the highest level of emotional exhaustion among school administrators is experienced by those who studied foreign languages. Nonetheless, it was stated that school administrators who were originally vocational teachers also had a high level of emotional exhaustion. According to the current study, on the other hand, school administrators who were originally subject matter teachers have the highest burnout level at emotional exhaustion dimension, although differences are not significant. At personal accomplishment dimension, they are very close to the burnout level of school administrators who were originally vocational teachers, which is the highest level. Results indicate that school administrators who were originally subject matter teachers have a higher level of emotional exhaustion and depersonalisation compared to other groups, and their perceived personal accomplishment is also very low.

According to the multiple regression analysis results in this study conducted to determine to what extent anxiety for authority use predicts burnout levels of school administrators, it is seen that anxiety for authority use, along with all its dimensions, has a low and significant relationship with burnout levels of school administrators. Sonmez (2010) also found that there were low and significant relationships between problems experienced by school administrators about areas of responsibility in terms of authority use and their work burnout levels. An examination of the other variables did not indicate a significant relationship between anxiety for authority use and emotional exhaustion. However, the study indicated low, parallel relationships between administrative affairs and depersonalisation, and personal affairs and personal accomplishment. Results of t-test conducted to reveal significance of regression coefficients show that administrative affairs dimension of anxiety for authority use is an important predictor of depersonalisation dimension, and that personnel affairs is an important predictor of school administrators' burnout at personal accomplishment dimension. It is seen that none of the dimensions of anxiety for authority use predicts emotional exhaustion of school administrators. Dimensions of the level of anxiety for authority use, as a whole, explains 5.7% of the emotional exhaustion, 5.2% of the depersonalisation, and 4.3% of the personal accomplishment dimensions of burnout for school administrators. One result indicates that school administrators' anxiety to use authority about administrative affairs results in depersonalisation towards their job. If school administrators cannot make decisions freely, they may feel they are losing their domination over their job. This may cause them to lose their interest in other tasks, and experience depersonalisation towards their job. Based on this, it is considered that an increase in the authority of school administrators in administrative affairs may decrease their anxiety about administrative affairs, and accordingly decrease the depersonalisation. Another result is that school administrators'

anxiety about personnel affairs of the school results in their perceived failure in their job. This shows that personnel affairs process is a major process which helps school administrators to feel confident and successful about management. It is possible to decrease the level of anxiety and accordingly the burnout of school administrators at personal accomplishment dimension through making them more competent by organisational behaviour.

It is seen that there are few studies in the literature on school administrators' anxiety for authority use. Design of new studies to reveal reasons for such anxiety by school administrators will shed light on other studies to decrease the level of anxiety. This topic may be examined in more depth through receiving opinions of school administrators and all involved stakeholders. Besides, studies may be conducted to reveal how this anxiety by school administrators reflects on work processes in schools.

Notes

Corresponding author: TUGBA HOSGORUR

References

- Agaoglu, E., Altinkurt, Y., Yilmaz, K., & Karakose, T. (2012). Opinions of school administrators and teachers about proficiency of school administrators: In Kutahya. *Education and Science*, 37 (164), 159-175.
- Aksu, A., & Baysal, A. (2005). Principal burn out in primary school. *Educational Administration: Theory and Practice*, 41, 7-24.
- Altinkurt, Y., & Yilmaz, K. (2012). Relationship between school administrators' organizational power sources and teachers' organizational citizenship behaviors. *Educational Sciences: Theory and Practice*, 12 (3), 1833-1852.
- Altun, M. (2013). *The use of authority by primary and secondary school principals* (Unpublished master's thesis). Dokuz Eylul University, Izmir.
- Aslanargun, E. (2009). *The power sources that principals handle in Turkish public elementary and secondary school administration* (Unpublished doctoral dissertation). Ankara University, Ankara.
- Aslanargun, E., & Bozkurt, S. (2012). Problems that school principals face in school administration. *Gaziantep Universitesi Sosyal Bilimler Dergisi*, 11 (2), 349-368.
- Aydin, L. (2002). *Burnout levels of primary education school administrators* (Unpublished master's thesis). Sakarya University, Sakarya.
- Boyland, L. (2011). Job Stress and coping strategies of elementary principals: A state-wide study. *Current Issues in Education*, 14 (3), 1-10.
- Bursalioglu, Z. (1980). *Egitim yoneticisinin davranis etkenleri*. Ankara: Ankara Universitesi Egitim Fakultesi Yayinlari, No: 87.
- Bursalioglu, Z. (2002). *Okul yonetiminde yeni yapi ve davranis*. Ankara: Pegem Akademi.
- Buyukozturk, S. (2009). *Sosyal bilimler icin veri analizi el kitabi*. Ankara: Pegem Akademi.
- Celikten, M. (2004). A portrait of an ideal school principal. *Journal of Academic Studies*, 21, 195-204.
- Daresh, J. C. (1986). Support for beginning principals: First hurdles are highest. *Theory into Practice*, 25 (3), 168-173.

- Demirdis, E. (2009). *The relation between the emotional intelligence levels and the burnout levels of the primary school administrators* (Unpublished master's thesis). Harran University, Sanliurfa.
- Demirtas, H., Ustuner, M., & Ozer, N. (2007). Examining school management problems by student and school related variables. *Educational Administration: Theory and Practice*, 51, 421-455.
- Ekinci, A. (2010). Opinions of principals and teachers working in primary schools about their vocational problems. *Elementary Education Online*, 9 (2), 734-748.
- Ergin, C. (1992). Burnout in doctor and nurses and adaptation of Maslach Burnout Inventory. VII. Ulusal Psikoloji Kongresi Bilimsel Calismalari (pp. 143-154). Ankara: Turk Psikologlar Dernegi Yayini.
- Friedman, I. A. (2002). Burnout in school principals: role related antecedents. *Social Psychology of Education*, 5, 229-251.
- Guler, M. (2002). *Ilkogretim okul mudurlerinin yetki kullanimina iliskin gorusleri. Yayinlanmamis yuksek lisans tezi* (Unpublished master's thesis). Firat University, Elazig.
- Gunduz, Y., & Balyer, A. (2013). Roles That School Principals Should Conduct in the Future. *Anadolu University Journal of Social Sciences*, 13 (3), 45-54.
- Itil, N. (2007). *The evaluation of the relation between primary school principal's burnout and school culture: Case of İstanbul* (Unpublished master's thesis). Yeditepe University, Istanbul.
- Izgar, H. (2000). *The level and causes of burnout of school administrators and the examination of these according to some factors* (Unpublished doctoral dissertation). Selcuk University, Konya.
- Karaman, M.A. (2009). *An investigation of primary and high school administrators burnout levels* (Unpublished master's thesis). Yeditepe University, Istanbul.
- Keskin Surucuoglu, H. (2011). *Burnout in school administrators: City center Kutahya* (Unpublished master's thesis). Dumlupinar University, Kutahya.
- Kocak, R., Yilmaz, D., & Gokler, R. (2013). The Anxiety scale of school administrators' authority using: the study of validity and reliability. *The Journal of Academic Social Science Studies*, 6 (8), 395-415.
- Maslach, C. (1982) *Burnout: The cost of caring*. New Jersey: Prentice Hall.
- Maslach, C., Jackson, S.E. (1981). The measurement of experienced burnout. *Journal of Occupational Behaviour*, 2, 99-113.
- Maslach, C., Schaufeli, W.B., & Leiter, M.P. (2001). Job burnout. *Annual Review of Psychology*, 52, 397-422.
- Memduhoglu, H. B. (2007). Turk egitim sisteminde okullarin yonetimi ve okul yoneticilerinin yetistirilmesi sorunsali. *Milli Egitim*, 176, 86-96.
- Oksum, C. (2001). *Evaluation of efficiency of the primary education schools principles about using their authority by teachers an primary education supervisors* (Unpublished master's thesis). Gazi University, Ankara.
- Ozdemir, E. (2009). *Burnout levels of school administrators in relation to locus of control* (Unpublished master's thesis). Maltepe University, Istanbul.
- Ozyurek, A., Gumus, H., & Dogan, S. (2012). Examination of burnout and life satisfaction levels of teachers and school administrators. *International Journal of Human Sciences*, 9 (2), 892-904.

- Sonmez, N. (2010). *Problems which school managers face with using their authority and their relationship with level of burnout: Case of Kocaeli City* (Unpublished master's thesis). Sakarya University, Sakarya.
- Sahin, C. (2011). Analysing administrator anxiety levels of school administrators according to various variables. *Ahi Evran Universitesi Kirsehir Egitim Fakultesi Dergisi*, 12 (4), 143-161.
- Simsek, M.S. (2002). *Yonetim ve organizasyon*. Konya: Gunay Ofset.
- Tanriogen, A., & Yucel, Z. (2007). Principals' problems in using and delegating authority. *Pamukkale Universitesi Egitim Fakultesi Dergisi*, 1 (21), 55-66.
- Taris, T.W., Le Blanc, P.M., Schaufeli, W.B., & Schreurs, P.J.G. (2005). Are there causal relationships between the dimensions of the Maslach Burnout Inventory? A review and two longitudinal tests. *Work & Stress*, 19 (3), 238-255.
- Yildirim, N. (2011). Positive and negative contributions of management profession to school managers. *Education and Science*, 36 (161), 230-245.
- Yildirim, S.S. (2009). *Researching school administrators burnout level* (Unpublished master's thesis). Maltepe University, Istanbul.
- Yilmaz, E., Altinok, V. (2009). Examining the loneliness and the life satisfaction levels of school principals. *Educational Administration: Theory and Practice*, 15 (59), 451-469.
- Yucel, Z. (2006). *Principal's problems in using and delegating authority* (Unpublished master's thesis). Pamukkale University, Denizli.