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Research Article

Consequences of Self-Leadership: A Study on Primary School Teachers

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Abstract

This study explores the consequences of self-leadership on job satisfaction, organizational commitment and innovative behaviors of teachers. For this purpose, a field study was conducted with the data gathered from 440 primary school teachers who work in different cities. To test the research hypotheses, correlation and regression analysis were conducted. Results showed that self-leadership behaviors had significant effects on job satisfaction, organizational commitment and innovation. Findings revealed that self-reward and self-punishment strategies had no effect on dependent variables while self-observation and focusing thoughts on natural rewards had the strongest impacts. Also, it was found that some of the demographic variables had effects on some of the factors.

Keywords

Self-leadership • Job satisfaction • Organizational commitment • Innovation • Self-observation

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Rapid changes and an increasingly competitive market due to information and technology stand out as the most important challenges facing organizations in recent years. As the organizations transform into more organic structures by moving away from the concept of centralized management, it becomes indispensable for the employees to take much more responsibility for their own work (Houghton & Yoho, 2005). Concepts such as employee empowerment, self-managing teams, participative management and total quality management that have sought to restructure processes, bring new viewpoints for both the employees and organizations (Alvesson & Willmot, 1992; Conger & Kanungo, 1988; Thomas & Velthouse, 1990). These new viewpoints regard the employees as active participants in organizations (Aktouf, 1992). In addition, the controlling concept of the organizations has experienced certain changes, meaning that it has shifted from top and external sources to the employees themselves (Shipper & Manz, 1992). The employees, it is ensured, are much more effective on their jobs by distributing power and responsibilities among them (Anderson & Prussia, 1997). In this framework, the common inclination was towards self-managing teams and organizational structures where the many roles of the leaders were shared by team members or collectively. Thus, the self-leadership applications become prominent in such working environments, which are not centralized and pay attention to the employees and empower them (Houghton & Yoho, 2005).

Considering Neck and Houghton's (2006) study, certain variables such as job satisfaction, commitment, innovation/creativity, independence, psychological empowerment, trust, self-efficacy, positive effect and team potency appear to be potential outcomes of self-leadership. It is suggested that empirical studies considering the relationship between these variables and self-leadership are vital (Neck & Houghton, 2006). Although previous research expressed some theoretical relations between self-leadership and some organizational outcomes, there is still a lack of field studies.

To address these research gaps, we offer an empirical study of self-leadership and its impact on job satisfaction, organizational commitment and innovation in an educational context. This study has two main objectives. First, it will contribute to develop the self-leadership concept by applying empirical research. Second, although there are some empirical studies on self-leadership in the business sector, this study will act as a pioneering effort to explore the impacts of self-leadership on organizational outcomes in schools.

Literature Review

Self-leadership

Self-leadership is the process by which a person controls his/her own behaviors, creates influence and leads oneself using specific behavioral and cognitive strategies (Manz, 1986, 2015; Manz & Neck, 2004; Manz & Sims, 2001). The concept of self-leadership originated with the ever broadening concept of self-management, which was defined by the idea of leadership substitutes by Kerr and Jermier (1978), and which was an extension of the self-control theory of the mid-1980s (Neck & Houghton, 2006). Self-leadership represents an alternative viewpoint for traditional leadership and organization structures where the control and effect power belongs to the appointed leaders (Pearce & Manz, 2005).

Generally, self-leadership is defined as a normative concept, which includes certain cognitive and behavioral rules of self-regulation theory, social cognitive theory, intrinsic motivation theory and self-control theory. The self-leadership is constituted of certain cognitive and behavioral strategies that are designed to affect self-efficacy (Neck & Houghton, 2006). Self-leadership strategies are commonly classified according to three different dimensions: (1) behavior-focused strategies, (2) natural reward strategies and (3) constructive thought pattern strategies (Anderson & Prussia, 1997; Houghton & Neck, 2002; Manz & Neck, 2004; Manz & Sims, 2001; Neck & Houghton, 2006; Prussia, Anderson, & Manz, 1998).

The *behavior-focused strategies* aim to heighten the self-awareness of individuals and to facilitate personal behavioral management towards the obligatory works that are not very attractive (Houghton & Neck, 2002; Manz & Neck, 2004). These strategies are constituted of self-goal setting, self-reward, self-punishment, self-observation and self-cueing (defining reminders) (Houghton & Neck, 2002). The behavior-focused strategies prevent negative and unwanted behaviors leading to unsuccessful results, and promote positive and desired behaviors resulting in successful results (Neck & Houghton, 2006).

The *natural reward strategies* aim to create such situations which can motivate an individual as regards the pleasant aspect of a duty or to work without any external effect (Houghton, Bonham, Neck, & Singh, 2004; Manz, 1986; Manz & Neck, 2004). These strategies are constituted of two important strategies (Neck & Houghton, 2006). The first strategy adds much more pleasant features to the given work and ensures that the to-be-done work is seen as a natural reward (Manz & Neck, 2004; Manz & Sims, 2001). The second strategy shapes perceptions so that there is focus on the positive aspects of the work, in other words focus on the natural rewards by going away from the negative points (Manz & Neck, 2004; Manz & Sims, 2001). Generally, natural

reward strategies are designed to increase performance in the behaviors related to the duty by ensuring the self-efficacy and self-determination emotions of individuals (Houghton & Yoho, 2005; Neck & Houghton, 2006).

The *constructive thought strategies*, the last component of self-leadership, are based on the concept by which individuals affect and direct themselves by using certain cognitive strategies (Godwin, Neck, & Houghton, 1999; Manz & Neck, 1991; Neck & Manz, 1992). These strategies aim to create constructive thought models and routine thinking types, which can affect the individuals' performance positively (Neck & Houghton, 2006; Neck & Manz, 1992). Constructive thought pattern strategies comprise of identifying and replacing dysfunctional beliefs and assumptions, mental imagery and positive self-talk (Manz, 1992; Neck, 1996; Neck & Houghton, 2006; Neck & Manz, 1996).

Self-leadership has been examined in terms of many concepts since the 1990s, such as spirituality in the workplace (Neck & Milliman, 1994), performance appraisals (Neck, Stewart, & Manz, 1995), organizational change (Neck, 1996), entrepreneurship (Neck, Neck, & Manz, 1997), diversity management (Neck, Smith, & Godwin, 1997), job satisfaction (Houghton & Jinkerson, 2007; Robert & Foti, 1998), non-profit management (Neck, Ashcraft, & Vansandt, 1998), goal setting/goal performance (Godwin et al., 1999; Neck, Nouri, & Godwin, 2003), team performance (Stewart & Barrick, 2000), team sustainability (Houghton, Neck, & Manz, 2003), succession planning (Hardy, 2004) and ethics (Vansandt & Neck, 2003). This study aims to examine the relation of self-leadership with job satisfaction, organizational commitment and innovation.

Relationship between Job Satisfaction and Self-Leadership

Job satisfaction is defined as the attitude of an employee towards the job, negative and positive evaluation of different aspects of the working environment and overall degree to which an individual likes his/her job (Iverson & Maguire, 2000). There are many studies on the factors affecting the job satisfaction of individuals (Locke, 1976; McFarlin & Sweeney, 1992). The theories and researches on job satisfaction include many organizational factors decreasing or increasing the satisfaction of employees.

The roles of teachers are really important for the execution of educational targets, as they have to carry out many duties such as the arrangement of the educational environment, selection of training methods and maintaining a relationship with the students. The performance of the teachers is the pre-requisition for the execution of the educational goals of schools. The job satisfaction of a teacher is one of the most important factors affecting performance (Cerit, 2009). It is stated that teachers' low or high job satisfaction affects the service quality in the schools (Yavuz & Karadeniz, 2009).

The factors which affect the job satisfaction of teachers are grouped under three headings: demographical variables, features about job role and work experiences (Perrachione, Rosser, & Petersen, 2008). Demographical variables such as age, gender, marital status, educational status and type of school stand out as the effective factors determining the job satisfaction of teachers (Bogler, 2002; Crossman & Harris, 2006; Ma & MacMillan, 1999; Meek, 1998; Perie & Baker, 1997). Moreover, conflict, overload, ambiguity and stress are found to have effects on job satisfaction (Billingsley & Cross, 1992; Hargreaves, 1994). Regarding work experiences, such as the opportunities for teaching students and working with them, cooperation with colleagues, leadership styles and appreciation level of school administration and the facilities for personal development, these are seen as important factors affecting the job satisfaction of teachers (Cockburn, 2000; Hargreaves, 1994; Ma & MacMillan, 1999; Perie & Baker, 1997).

Essentially, job satisfaction is based on a personal evaluation process (Houghton & Jinkerson, 2007). Considering that the dysfunctional thinking processes of individuals hinder them from evaluating information effectively, a relationship can be anticipated between job satisfaction and dysfunctional thinking processes (Judge & Locke, 1993). In this context, it is suggested that the constructive thought model strategies have a significant potential to affect job satisfaction positively (Houghton & Jinkerson, 2007). Neck and Manz (1996) found that the individuals taking lessons in constructive thought strategies showed a higher mental performance, felt much more positive emotions towards their jobs and experienced higher job satisfaction than the control group that did not take these lessons. Robert and Foti (1998) found that the individuals with high self-leadership skills had greater job satisfaction when they had much more autonomous working places where they could use their self-leadership skills. Houghton and Jinkerson (2007) have analyzed the effects of the constructive thought strategies, which are one of the sub-dimensions of self-leadership, on increasing the job satisfaction of employees and found a positive relationship between the constructive thought strategies and job satisfaction. Hee and Mi (2014) studied the effect of self-leadership on job satisfaction and the mediating role of organizational commitment in a group of newly-employed nurses and found the direct impact of self-leadership on job satisfaction. In this context self-leadership behaviors of the individuals are seen as important factors affecting job satisfaction (Houghton & Jinkerson, 2007; Neck & Manz, 1996; Robert & Foti, 1998).

To sum up, it can be argued that there is a positive relationship between self-leadership skills and job satisfaction. In this respect, although there is no previous research in the literature analyzing the relationship between the self-leadership skills and job satisfaction of teachers, it can be expected that teachers who have a high level of self-leadership skills will also have a high level of job satisfaction. Thus, the following hypothesis is developed in order to test this idea:

Hypothesis 1: Self-leadership behaviors of the teachers have a significant and positive effect on job satisfaction.

Relationship between Organizational Commitment and Self-Leadership

As well as being one of the important focus points of the fields of organizational behavior and organizational psychology, it is stated that organizational commitment has relationships with many behavioral outcomes such as job performance, job satisfaction and motivation of employees (Cullinan, Blin, Farrar, & Lowe, 2008; Jaros, 1997; Vitell & Singhapakdi, 2008). Mowday, Porter, and Steers (1979) define a person's organizational commitment as having strong beliefs in adopting organizational values and objectives, showing great effort beyond the expectations for the organization and having willingness to maintain organizational membership. Organizational commitment expresses a psychological situation, which presents the relationship between the employee and his/her organization (Allen & Meyer, 1990). This implies that the organizational commitment of an employee is affected by three different components: affective commitment, continuance commitment and normative commitment (Allen & Grisaffe, 2001).

The commitment of teachers was a subject analyzed by researchers after the 1980s in the education literature, by considering the personal, institutional and socio-historical concepts and the mutual interactions between these factors (Choi & Tang, 2009). Considering that teachers are the most important shareholders after students in the education organizations, it can be argued that the commitment of the teachers is the key to reform and renewal capacities of the school (Hussein & da Costa, 2008). The fact that there is a mutual relationship between the success of students and the commitment of teachers for their schools and students suggests that the commitment of teachers constitutes the basis for the efficacy of the school organization (Nir, 2002). Choi and Tang (2009) have defined the organizational commitment of teachers as spending extra time and effort on their students, school and teaching activity; desiring development and seeking for the perfect standards; being committed to the school rather than just fulfilling responsibilities; and trying to achieve good things for the students by having a vision.

Many studies showed that education status, experience, self-efficacy, leadership, self development opportunities, or job satisfaction affected the commitment of teachers (Choi & Tang, 2009; Firestone & Pennell, 1993; Hulpia & Devos, 2010; Nguni, Slegers, & Denessen, 2006; Reichers, 1985). Education literature presents a significant relationship between the leadership applications in the school and the commitment of teachers (Nguni et al., 2006). However, previous research has defined the leader as the "director" of teachers and investigated the impact of the leader's behavior on teachers' commitment.

Nevertheless, recent leadership approaches describe leadership as a fact that was distributed to and shared between the group and organization members (Pearce & Conger, 2003). One of these recent approaches is self-leadership and organizational commitment, which is one of the most commonly proposed variables for analyzing the self-leadership in literature (Houghton & Yoho, 2005; Manz & Sims, 2001; Neck & Houghton, 2006).

Self-leadership theorists state that individuals who portray self-leadership behaviors are likely to have opportunity oriented mental constructs, be more resistant to endure challenges and struggle to solve the problems (Bligh, Pearce, & Kohles, 2006). Thus, employees with high self-leadership will focus more on the positive sides of work, orientate their mental processes to willing parts of the tasks, be more committed to their organizations and be more willing to make efforts to achieve goals. Bligh et al. (2006) state that individuals who display self-leadership behaviors generally embrace their work duties much more. In other words, it is expected that individuals applying self-leadership traits show more commitment to their duties, goals, teams or organizations (Bligh et al., 2006; Houghton & Yoho, 2005; Manz & Sims, 2001). Hee and Mi (2014) state that self-leadership has a significant impact on organizational commitment and commitment has a mediating role in the relation between self-leadership and job satisfaction.

Although theoretically mentioned in the literature, there is no research directly analyzing the relationship between the self-leadership skills of teachers and their organizational commitment. However, with reference to theoretical assumptions and findings of the researches in different professions we can expect a positive relation between the two. Thus, the following hypothesis is developed in order to test this idea:

Hypothesis 2: The self-leadership behaviors of teachers have a significant and positive effect on their organizational commitment.

Relationship between Innovation and Self-Leadership

Individual innovation in the workplace constitutes the basis of high performance in the globalization era (Carmeli, Meitar, & Weisberg, 2006; Diliello & Houghton, 2008; Janssen, Van De Vliert, & West, 2004). The individual innovation is seen as the source of the institutional innovation and the competitiveness of the institution. In addition, the innovation is a complicated process affected by many factors from the level of institution to the personal levels (Pratoom & Savatsomboon, 2010). However, the institutional level innovation has been the focus of many researches and the individual level factors of the innovation have been ignored (Oldham & Cummings, 1996). Since the studies on individual innovations are scarce, there is no consensus on what the individual factors affecting the individual innovation are and how this affects the innovation (Pratoom & Savatsomboon, 2010).

In the OSLO manual (The Measurement of Scientific and Technological Activities: Proposed Guidelines and Interpreting Technological Innovation Data) prepared by OECD (Organization for Economic Co-operation and Development) and the European Commission, innovation is defined as the execution of a new or improved product or service, a new process, a new marketing method or a new organizational method in a business, working organization or foreign relations ([Organisation for Economic Co-operation and Development, 2005](#)).

The rapid changes in the world have led to certain changes in the structure of educational institutions. Younger generations become familiar with information and communication technologies at an earlier age, and they evaluate these as constituting an indispensable part of their lives. For these reasons, teachers should be accustomed to the new technologies to communicate with the students. In this regard, teachers are expected to be familiar with innovation and change, and they should be innovative ([Kihfer, 2009](#)).

In the education literature, it is stated that the willingness of teachers has an important role in the application of new teaching/training methods ([Konings, Brand-Gruwel, & Van Merriënboer, 2007](#)). These methods may be minor changes in in-class activities, or significant changes such as the change of the curriculum as a whole. Many factors are mentioned in the literature as having an effect on the willingness of teachers to apply innovation to their teaching/training methods: the suitability of the innovations with the current applications of teachers, perception of teachers for the time and effort to innovate, the importance and application challenges of innovation for teachers and the experience and self-efficacy of teachers ([Doyle & Ponder, 1977](#); [Ghaith & Yaghi, 1997](#); [Guskey, 1988](#); [McCharen, Song, & Martens, 2011](#); [Sparks, 1983](#)). [Luft and Pizzini \(1998\)](#) state that when teachers intend to apply an innovation, they should feel themselves strong enough to face the struggle with external limitations and their own personal challenges. Also, they should be highly motivated to innovate because this process can be really long, boring and difficult.

Workplace innovation consists of three complex steps ([Scott & Bruce, 1994](#)). In the first phase, the individual recognizes a problem and expresses some solutions. In the second phase, the individual, having some novel ideas, explores some possible inner and outer supports for new ideas. At the last phase, the individual realizes the novel idea in the organization by developing a model or prototype ([Kanter, 1988](#)).

In the first phase of the innovation process, constructive thought pattern strategies with evaluating beliefs and assumptions and self-talk with mental imagery sub dimensions are active. Individuals can change their non-constructive thoughts by self-leadership and enhance their innovative ideas so that they may cope with problems more easily and produce more effective solutions. In the second phase of innovation,

the individual focuses on internal and external supports. At this point individuals with high self-leadership abilities could orientate others for the support of novel ideas (Carmeli et al., 2006).

There are various researches analyzing the relationships between innovation and self-leadership. Curral and Marques-Quinteiro (2009) state that the development of self-leadership skills might be a suitable method for increasing the innovative behaviors within the organization. Diliello and Houghton (2006) suggested a model related to self-leadership, innovation and creativity in their studies and supposed that the individuals who have strong self-leadership skills see themselves as much more innovative and creative. In addition, if these strong self-leaders receive necessary support from the workplace, they can apply their innovative and creative behaviors more generally. In addition, the organization leaders are recommended to encourage self-leadership applications in order to create a workplace supporting innovation and creativity on group, manager and organization level. Carmeli et al. (2006) found a positive relationship between the three dimensions of self-leadership and the innovative behaviors of employees.

Scott and Bruce (1994) stated that innovative behaviors of employees in the workplace constitute the basis of organizations of high performance. They argue that defining what motivates the employees of innovative behaviors or how these behaviors can occur within the organization is an important research subject. In a recent study Gomes, Curral, and Caetano (2015) found a positive relation between self-leadership and individual innovation of health sector employees. They state that self-leadership, as a general combination of a set of strategies, plays a positive role in predicting work role innovation.

In brief, we argue a positive relationship between the innovative behaviors and self-leadership skills of individuals. Therefore, although there is no research focusing on the relationship between the innovative behaviors and self-leadership skills of teachers, it can be argued that the teachers who have high self-leadership skills will display much more innovative behaviors than those who do not. Thus, the following hypothesis is developed:

Hypothesis 3: The self-leadership behaviors of teachers have a significant and positive effect on their innovation.

Methodology

Population and Sampling of Research

The population of the research is constituted of the teachers working in primary schools. The number of teachers working in primary schools in Turkey is 485,677 (Milli Eğitim Bakanlığı, 2010). For the study, a formal application was made to the Ministry of Education, who have given permission to undertake research in the cities of Adana, Ankara, Agri, Balıkesir, Burdur, Iğdir and İzmir which represent a good geographic and socio-economic spread of the country. In total, 480 (approximately 70 for all different cities) questionnaires were sent to the participants and 452 of them returned the questionnaires. As a result of the examinations conducted before the analyses, 12 questionnaires, in which the answers are grouped in a higher or lower group and most questions were not answered, are omitted from the research and the analyses are conducted using 440 questionnaires.

The age range of the participants varies between 22 and 51, and these ranges are defined as 208 participants between 22 and 30 years (47.3%), 126 participants between 31 and 40 years (28.6%), 78 participants between 41 and 50 years (17.7%) and 28 participants aged 51 and over (6.4%). When the working time of the participants is analyzed, it is seen that 242 participants (55%) have worked for 1-12 years, 114 participants (25.9%) for 10-19 years and 84 participants (19.1%) for 20 and over years. Two hundred and fourteen participants (48.6%) are male, and the rest, 226 participants (51.4%), female. The educational status of the participants is defined as follows: 411 (93.4%) undergraduates, 23 (5.2%) postgraduate and six (1.4%) with a PhD degree.

Data Collection Tools

Self-leadership Scale. In order to define the level of individuals displaying self-leadership behaviors, the Self-Leadership Turkish Questionnaire (SLTQ) (Tabak, Sıgri, & Turkoz, 2009), adapted from Revised Self-Leadership Scale (RSL) (Houghton & Neck, 2002), was used. The original form, RSL, has three dimensions and nine sub-dimensions: (1) behavior-focused strategies (self-goal setting, self-reward, self-punishment, self-observation, and self-cueing), (2) natural reward strategies and (3) constructive thought pattern strategies (visualizing a successful performance, self-talk, and evaluating beliefs and assumptions). In Tabak et al.'s (2009) study, two different sub-dimensions, "self-goal setting" and "visualizing a successful performance" have been collected under the same dimension after factor analyses. The new dimension was named as "visualizing a successful performance by self-goal setting" and it was placed under the constructive thought pattern strategies. In this study, we used Tabak et al.'s (2009) SLTQ with three factors and eight sub-dimensions including 29 items.

The scale includes sentences such as “I use my imagination to achieve a high level of success in important work,” “I get really angry with myself in situations where I am unsuccessful,” and “I have special targets for my individual success.” The reliability values of the scale (Cronbach Alpha) are determined as .85 for self-rewarding, .78 for self-talk, .80 for visualizing successful performance by self-goal setting, .77 for self-cueing, .72 for self-punishment, .67 for self-observation, .60 for evaluating thought and ideas and .50 for focusing on natural rewards. The total reliability of the scale is calculated as .84.

Job Satisfaction Scale. A five-item scale which is adapted from the Job Diagnostic Survey of [Hackman and Oldham \(1975\)](#) is used to measure the general job satisfaction of the employees. That scale measures the general job satisfaction of an individual under one dimension. The scale is composed of questions such as “My job is like a hobby for me,” “I think I am much happier than the others in my job in this school,” “I get great pleasure from teaching.” The participants were asked to choose to what extent they agreed with these answers on a 5-point Likert scale ranging from “strongly disagree” to “strongly agree.” The scores ranged from 5 to 25, and the increase in the scores represents the higher job satisfaction of an individual. The reliability coefficient of the scale is found to be .85.

Organizational Commitment Scale. A scale adapted from [Jaworski and Kohli \(1993\)](#) is used in the research in order to measure the levels of organizational commitment. The scale is constituted of 6-items and evaluates the commitment experienced by teachers as general organizational commitment, and measures it under one dimension. The scale is constituted of sentences such as “I think my future is closely related to my school,” “I can sacrifice my wellbeing if it is required for the wellbeing of my school,” and “The bounds between my school and me are really strong.” The participants were asked to choose to what extent they agreed with the sentences in a 5-point Likert scale ranging from “strongly disagree” to “strongly agree.” The reliability coefficient of the scale is found to be .78.

Innovation Scale. Sub-scale of innovation, which is adapted from [Lumpkin and Dess’s \(1996\)](#) study, is used in order to evaluate the innovative behaviors of the teachers participating in the research. The scale consists of such sentences as “I spend time to make new things about my job,” “I think I am someone who is open to new ideas,” “I motivate my students to be innovative.” The participants were asked to choose to what extent they agreed with these answers in accordance with a 5-point Likert scale ranging from “Strongly disagree” to “Strongly agree.” The scores which could possibly be obtained from the scale range from 5 to 25, and the increase in the scores represents the high organizational commitment of an individual. The reliability coefficient of the scale (Cronbach Alpha) is determined as $a = .76$.

Confirmatory factor analysis. To ensure the construct validity of the study variables, confirmatory factor analysis (CFA) was conducted by using AMOS software. In CFA we used maximum likelihood estimation on the covariance matrix. On job satisfaction, organizational commitment and innovation scales, we tested one-factor models separately. As hypothesized, the one-factor models for job satisfaction [$\chi^2 = 18,585, p < .01; df = 4, GFI$ (goodness of fit) = .98, CFI (comparative fit index) = .98, RMSEA (root mean square error of approximation) = .08, AGFI (adjusted of goodness fit index) = .93], organizational commitment [$\chi^2 = 36,492, p < .01; df = 8, GFI = 97, CFI = 96, RMSEA = 08, AGFI = .93$] and innovation [$\chi^2 = 16,107, p < .01; df = 4, GFI = 98, CFI = 97, RMSEA = 08, AGFI = .94$] fitted the data.

Due to [Tabak et al.'s \(2009\)](#) findings about the dimensions of self-leadership construct, we performed three different models for the self-leadership scale. Model-1 is the one-factor model in which all observed items are gathered under one dimension; Model-2 is the uncorrelated model in which all three factors include their observed items without any correlations between the factors; and the Model-3 is the second order factor model in which there are three correlated factors and one comprehensive factor including three dimensions.

The results indicated that while the second order factor model produced an acceptable solution [$\chi^2 = 67,675, p < .01; df = 21, GFI = 97, CFI = 95, RMSEA = 07, AGFI = 93$], three uncorrelated factor [$\chi^2 = 194,09, p < .01; df = 25, GFI = 85, CFI = 54, RMSEA = 18, AGFI = 77$] and one-factor [$\chi^2 = 157,23, p < .01; df = 27, GFI = .87, CFI = .87, RMSEA = .10, AGFI = .87$] models did not yield acceptable fit. Thus, on the basis of the confirmatory factor analysis results, we used the second order factor self-leadership model in the study.

Control variables. In order to control the impacts on the relation between research variables, we used gender, age, marital status, income, working period and educational status as control variables. In the first steps of regression analyses, control variables are entered to the analysis first, then, the impacts of independent variables on dependents are explored.

Findings

Pearson correlations are calculated in order to find the relationships between the dependent and independent variables in the research. The findings for the correlations are presented in Table 1. Considering the correlations of the self-leadership dimensions between themselves, the highest relationship is found between visualizing a successful performance by self-goal setting, and evaluating beliefs and assumptions ($r = 0.60; p < .01$), and the lowest is found between self-punishment and self-observation ($r = -0.10; p < .05$). In addition, it is found that whole self-leadership dimensions have

a significant relationship between themselves. When the relationship between the job satisfaction and the dimensions of the self-leadership is analyzed, it is seen that the highest relationship is with self-observation ($r = 0.34$; $p < .01$) and the lowest with self-reward ($r = 0.14$; $p < .01$). On the other hand, it is determined that there is no significant relationship between job satisfaction and self-punishment ($r = 0.04$; $p > .01$) and self-talk ($r = 0.04$; $p > .01$). Analyzing the relationship between organizational commitment and the dimensions of self-leadership, it is found that the highest relationship is with self-observation ($r = 0.28$; $p < .01$) and the lowest with evaluating beliefs and assumptions ($r = 0.18$; $p < .01$). Furthermore, there is no significant relationship between self-reward ($r = 0.09$; $p > .01$), self-punishment ($r = -0.08$; $p > .01$) and self-talk ($r = 0.08$; $p > .01$). Finally, considering the relationship between innovation and the dimensions of self-leadership, it is determined that the highest relationship is with self-observation ($r = 0.50$; $p < .01$) and the lowest with self-talk ($r = 0.10$; $p < .05$). In addition, it is determined that there is no significant relationship between innovation and self-punishment ($r = -0.08$; $p > .01$).

Table1
Correlations between Variables

	Mean	SD	1	2	3	4	5	6	7	8	9	10
1. Self-reward	3.41	.94										
2. Self-punishment	2.76	.76	-.11*									
3. Self-observation	4.04	.52	.25**	-.10*								
4. Self-cueing	3.38	1.02	.30**	-.10*	.30**							
5. Focusing thoughts on Natural Rewards	3.94	.66	.34**	-.15**	.45**	.33**						
6. Visualizing a successful performance	3.90	.59	.41**	-.15**	.56**	.41**	.51**					
7. Self-talk	3.43	.89	.43**	-.28**	.12*	.20**	.30**	.36**				
8. Evaluating beliefs and assumptions	3.99	.54	.35**	-.12*	.59**	.24**	.41**	.60**	.24**			
9. Job Satisfaction	3.86	.81	.14**	.04	.34**	.22**	.26**	.26**	.04	.24**		
10. Organizational Commitment	3.68	.73	.09	-.08	.28**	.26**	.27**	.22**	.08	.18**	.54**	
11. Innovation	4.33	.50	.21**	-.08	.50**	.26**	.45**	.44**	.10*	.45**	.37**	.39**

N = 440, ** $p < .01$, $p < .05$.

A regression analysis is conducted in order to test hypotheses and determine the direct relationships between the variables and the explanatory power of independent variables on the dependent variables. The job satisfaction, organizational commitment and innovation are evaluated as dependent variables and the effects of the dimensions of self-leadership on these variables are defined. As discussed above, some control variables are included in the first phase of the hierarchical regression in order to take control of their effects on the relations between research variables. The findings of hierarchical regression analysis showing the effects of the demographical variables and self-leadership dimensions on the dependent variables are presented in Table 2.

Table 2
Findings of Hierarchical Regression Analysis Predicting Dependent Variables

Independent Variables	Job Satisfaction		Organizational Commitment		Innovation	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
	β	β	β	β	β	β
1. Demographical Variables						
Age	0.044	0.126	-0.032	0.059	-0.007	0.156
Gender	0.068	0.050	-0.071	-0.108*	0.059	0.024
Marital Status	0.028	0.034	0.049	0.072	0.038	0.055
Total monthly income	0.006	-0.007	0.039	0.033	0.012	0.001
Working Period	0.097	0.020	0.162	0.058	0.069	-0.074
Educational Status	0.046	0.004	0.058	0.028	0.061	-0.003
2. Self-leadership Dimensions						
Self-reward		0.030		-0.024		0.01
Self-punishment		0.094		-0.044		-0.06
Self-observation		0.224***		0.182**		0.244***
Self-cueing		0.077		0.153**		0.030
Focusing thoughts on Natural Rewards		0.116*		0.150**		0.238***
Visualizing Successful Performance by Self-Goal Setting		0.056		-0.030		0.111*
Self-talk		-0.035		0.021		-0.081
Evaluating Beliefs and Assumptions		0.023		0.008		0.157**
ΔR^2	0.020	0.167	0.034	0.160	0.010	0.353
ΔF	1.503	6.064***	2.527	5.764***	0.717	16.538***

* $p < .05$, ** $p < .01$, *** $p < .001$.

Hypothesis 1 predicted that self-leadership behaviors of the teachers would have a significant and positive effect on job satisfaction. After including gender, age, marital status, income, working period and educational status into the model (Step 1), self-observation ($P = 0.224$; $p < .001$) and focusing on natural rewards ($P = 0.116$; $p < .05$) dimensions of self-leadership significantly explain 16.7% of the variance on job satisfaction ($F = 6.064$, $p < .001$). Thus, Hypothesis 1 is supported.

Hypothesis 2 proposed that self-leadership behaviors of the teachers would have a significant and positive effect on organizational commitment. The findings of Step 1 showed that the control variables have no significant effect on explaining the variance in organizational commitment, while the results of Step 2 revealed that gender ($P = -0.108$; $p < .05$), self-cueing ($P = 0.153$; $p < .01$), self-observation ($P = 0.182$; $p < .01$) and focusing on natural rewards ($P = 0.150$; $p < .01$) significantly explain 16% of the variance in organizational commitment ($F = 5.764$, $p < .001$). Therefore, Hypothesis 2 is supported.

Hypothesis 3 predicted that self-leadership behaviors of the teachers would have a significant and positive effect on innovation. The findings of hierarchical regression analysis showed that the demographical variables have no significant effect on explaining the variance of innovation (Step 1). When the effects of the self-leadership

dimensions on the demographical variables and innovation are reviewed (Step 2), it is found that self-observation ($P = 0.244$; $p < .001$), focusing on natural rewards ($P = 0.238$; $p < .001$), visualizing a successful performance by self-goal setting ($P = 0.111$; $p < .05$) and evaluating beliefs and assumptions ($P = 0.157$; $p < .01$) significantly explain 35,3% of the variance in innovation ($F = 16.538$, $p < .001$). Overall, these results provide significant support for Hypothesis 3.

Discussion

This study examined the effects of self-leadership behaviors in individuals on job satisfaction, organizational commitment and innovation by considering self-leadership as an independent variable. As regards the arithmetic mean of the self-leadership dimensions, it is evident that the most commonly used strategy by the teachers participating in the research is “self-observation,” and the least commonly used one is “self-punishment” (see Table 1). It can be argued that the obtained findings show a considerable similarity with the findings of the studies by [Houghton and Neck \(2002\)](#) except for the significant and interesting difference on using the “self-talk” strategy. Previous literature provides evidence for the use of self-talk strategy to improve the performance of athletes (e.g., [Cohn, 1991](#); [Gould, Finch, & Jackson, 1993](#); [Hardy, Hall, & Alexander, 2001](#); [McPherson, 2000](#)) however, the teachers in our study doesn't prefer it so much. One reason for this might be psychological. As [Hardy \(2006\)](#) states that some definitions of self-talk include day-dreaming or mental imagery and that may yield a negative perception for use of self-talk. Another reason might be cultural differences. [Peters and Williams \(2006\)](#) state that researchers in the area of self-talk have failed to consider whether the cultural differences can change the findings. [Alves et al. \(2006\)](#) imply that self-leadership should be considered differently in collectivist, high power distance and more feminine cultures. Thus, why the “self-talk” strategy, one of the most commonly used strategies in the culture for which the scale was developed is less frequently used by Turkish teachers can be explained with the differences between Turkish and American cultures. In the Turkish culture, a person talking to oneself is not welcomed and commonly self-talking people are perceived to be psychologically problematic. Thus, we believe that, Turkish teachers do not prefer using self-talk strategy as a self-leadership behavior.

When the correlation of job satisfaction with self-leadership is examined, it is in low and medium level relationship with all dimensions apart from the self-punishment and self-cueing dimensions (see Table 1). Considering that job satisfaction is based on a mental evaluation process, the reason for this outcome is due to the fact that these two strategies are mainly behavior-oriented. According to the findings of the regression analysis conducted to find the self-leadership dimensions predicting job satisfaction, it is seen that self-observation and focusing on natural rewards explain

16.7% of the change in job satisfaction (see Table 2). These two strategies are also the dimensions with which job satisfaction has the highest correlation (see Table 1). Thus, the power of self-leadership behaviors in the occurrence of job satisfaction is supported by the findings of regression analysis. These results on the relationship of job satisfaction with self-leadership are in line with the findings of the previous researches in the literature. [Neck and Manz \(1996\)](#) found that the individuals taking lessons on self-leadership have higher job satisfaction than the control group that was not taking lessons. [Robert and Foti \(1998\)](#) analyzed the relationships between self-leadership and administrative structures (supervision structure and job autonomy) and job satisfaction, and found that those who have high self-leadership skills are much more satisfied with their jobs in much more autonomous working places where they can use their self-leadership skills. Similarly, [Houghton and Jinkerson \(2007\)](#) analyzed the effects of self-leadership on increasing the job satisfaction of employees, and noted a relationship between constructive thought models and job satisfaction. All these findings show that self-leadership behaviors affect the job satisfaction of individuals positively.

When the correlation of organizational commitment with self-leadership is examined, it is understood to be in a low and medium level relationship with all dimensions apart from self-rewarding, self-punishment and self-cueing dimensions (see Table 1). Being based on the mental and emotional evaluation process, like job satisfaction, it is evaluated as the reason why these mainly behavior-oriented behaviors are unrelated to organizational commitment. According to the findings of the regression analysis conducted to find the self-leadership dimensions predicting the organizational commitment, it is seen that gender, self-cueing, self-observation and focusing on natural rewards explain 16% of the variance in organizational commitment (see Table 2). All these strategies affecting organizational commitment are also the dimensions with which organizational commitment has the highest correlation (see Table 1). All findings obtained in the research show that there is a positive relationship between the self-leadership behaviors and organizational commitment of the teachers.

When the correlation of innovation with sub-dimensions of self-leadership is examined, it is understood to be in a low and medium level relationship with all dimensions apart from the self-punishment dimension (see Table 1). The fact that nearly all dimensions of self-leadership are in relationship with innovation is an important finding. An innovation which is complicated, difficult and a process requiring patience by the individuals depends on directing their thoughts and behaviors towards innovation consciously and constructively. Considering that self-leadership is defined as a process in which individuals affect, direct and control themselves and their behaviors by using certain cognitive and behavioral strategies in order basically

to have success, the relationships determined in the present study are seen as really significant. According to the findings of the regression analysis conducted to find the self-leadership dimensions predicting innovation, it is seen that self-observation, focusing on natural rewards, visualizing a successful performance by self-goal setting and evaluating thoughts and ideas explain 35.4% of the variance in the innovation (see Table 2). According to these results, self-leadership has an important role in innovation. Carmeli et al. (2006) have determined positive relationships between the self-leadership and innovative behaviors of employees in their studies as regards the relationship between self-leadership skills and innovative behaviors in the workplace. As a result of the study conducted by Cural and Marques-Quinteiro (2009) on the relationships between self-leadership and internal motivation, target orientation and innovative behaviors, it can be stated that the development of the self-leadership skills of the employees is a suitable method to increase the innovative behaviors of the employees in the organization. Additionally, in parallel with the findings of the present study, the research conducted by Diliello and Houghton (2008), in which the relationships between self-leadership and creativity are analyzed within the scope of defense acquisition organizations, and the study conducted by Pratoon and Savatsomboon (2010) on the factors affecting individual innovation have determined that self-leadership is an important factor affecting innovative behaviors. All these findings show that self-leadership behaviors affect the innovative behaviors of employees in a positive direction.

Managerial and Theoretical Implications

The results of this study have important theoretical and managerial implications that add to our understanding of the nature and relationship between self-leadership, job satisfaction, organizational commitment and innovation. It can be seen that there are many theoretical researches on the self-leadership concept and that studies on the application are really limited. This research has sought both to contribute to the literature of organizational behavior and to define the dynamics of self-leadership in the sampling of teachers working in primary schools. The positive relationship between the three dependent variables (job satisfaction, organizational commitment and innovation), which were defined as potential outcomes of self-leadership in many theoretical studies on that subject, and self-leadership is determined in the findings. In addition, the current research is the first empirical attempt to define the relationship between self-leadership and organizational commitment.

These findings have important implications for educational bureaucrats, school principals and teachers. Teachers are obliged to carry out many duties such as the arrangement of the educational environment, selection of convenient training methods, application of new teaching methods and maintaining a good relationship

with the students. The high performance of the teachers on their duties is the pre-requisition for the success of the school. In this context, teachers' commitment to their schools, job satisfaction and innovative behaviors are the most important factors to affect their performance and the achievement of school objectives (Hussein & da Costa, 2008; Konings et al., 2007; Nguni et al., 2006; Nir, 2002; Reichers, 1985).

The findings indicate that the teachers who internalized self-leadership behaviors are more likely to show high commitment to the school, job satisfaction and innovation which requires self-evaluation, self-motivation and self-goal setting. Accordingly, it is very crucial for education bureaucrats and principals to notice the importance of self-leadership and to encourage teachers to display more self-leadership behaviors in order to have more committed, satisfied and innovative teachers in the schools.

Limitations and Suggestions for Future Studies

Although the present study states important implications about the impact of self-leadership on teachers' commitment, job satisfaction, and innovation in schools, two possible limitations of these findings should be noted. First, this study is not a longitudinal research but a cross-sectional one. The results might be different in a longitudinal study. In future studies, researchers should consider relationships in longitudinal models. Second, this research investigated the impact of self-leadership on commitment, job satisfaction, and innovation.

Analyzing the related literature, it can be seen that certain factors which can be outcomes of self-leadership (personnel empowerment, trust, performance, etc.) are included in the researches. Conducting researches which try to define the complicated relationships between these different variables will possibly make a contribution to the literature. Furthermore, having qualitative, quantitative or mixed properties and differentiating the sample as qualitative or quantitative can make important contributions to the literature for the generalization of the obtained findings.

In future studies, researchers could concentrate on some additional subjects. The first issue of possible future studies is the school types and teacher differences. This study focused on the self-leadership subject in public schools and with full-time teachers, however, the results might be different in private schools or with contracted teachers. Since previous research has implicated significant differences between full-time and contracted teachers' satisfaction and commitment levels (Feather & Rauter, 2004), a parallel difference might be possible for self-leadership behaviors. Thus, in the future comparative studies are needed.

Second issue of future studies is the cultural and economic differences. As a non-English speaking country, Turkey has high collectivism, power distance, uncertainty

avoidance, femininity and paternalism (Aycaan et al., 2000; Hofstede, 1980, 1985, 1991; Sargut, 2001) and its culture is significantly different than Western ones. Our results could be useful for some other similar cultures. Furthermore, Turkey has a growing and developing economy. Since most of the self-leadership studies are conducted in developed countries, recent findings are important for developing ones. Thus, comparative studies conducted in culturally and economically different countries could give more generalizable results in the future.

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