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Yazar(lar):
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Kaynak Gösterimi için:
Examination of the relationship between school principals’ 21st century skills and their strategic leadership according to teachers’ opinions

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Abstract

This study aims to examine the relationship between school principals’ 21st century skills and their strategic leadership according to teachers’ opinions. In this quantitative research, a descriptive model that describes the situation was used. The study was conducted in Ankara, and 424 teachers joined the study. To get data from teachers, two scales were used: 21st Century Educational Administrators’ Skills Scale and Strategic Leadership Scale. In order to determine the level of school principals’ 21st century skills and their strategic leadership, descriptive analysis was used as well as Pearson Correlation Analysis and Regression analysis. There were significant positive relationships between all dimensions of educational administrators’ 21st century skills and strategic leadership behaviors. Besides, education managers’ 21st century skills were found to be a significant predictor of their strategic leadership behaviors. As a result of the research, it was revealed that information literacy, technology literacy, accountability, leadership and responsibility were significant predictors of managerial leadership behavior. School administrators need to increase their levels of knowledge literacy, technological literacy, accountability, leadership, and responsibility skills in order to improve their managerial leadership behaviors.

Keywords: Strategic leadership, 21st century skills, Learning and innovation skills, Literacy skills, Social and professional skills.

Article Type: Research paper

Öğretmen algılarına göre okul yöneticilerinin 21. yy. eğitim yöneticisi becerileri ile stratejik liderlik davranışları arasındaki ilişki

Öz


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Introduction

In today’s world, where economic, social, and technological changes are rapidly increasing, educational institutions had to make new regulations in their structure to create the type of human needed by the 21st-century economy. In this context, curriculums were rearranged, duties, roles, and responsibilities of teachers, students and education administrators were redefined. Depending on this conception of change, a sense of leadership to be adopted by the teachers and administrators changed as well (Bozkurt & Aslanargun, 2015; Drucker, 2014; Vockley & Lang, 2008). School administrators having an important role in raising the individuals needed by the 21-century world need to transform their school and themselves into this direction (Drucker, 2014). Researchers worked on which skills the school administrators need to achieve this transformation, and they further improved the three-dimensional approach (managerial skills, human relations skills, and professional and technical skills) introduced by Katz in the 50s. New concepts such as respect for diversity, intercultural dialogue, gender sensitivity, which are the products of the critical pedagogical approach that the contemporary world focuses on, have emerged, and administrators are also required to know these concepts (Annulis & Gaudet, 2007; Bateman & Snell, 2004). Furthermore, concepts such as financial literacy, technological literacy, media literacy, and digital citizenship have been added to these (Cummings & Worley, 2001). Education administrators, who give direction to today’s human resources and their schools would have less survival chances unless they are equipped with these knowledges and skills. Recent studies said that educational managers should exhibit strategic leadership behaviors for the future of their organizations (Altinkurt, 2007; Coban, Ozdemir, & Pisapia, 2019; Pisapia, 2009; Vera & Crossan, 2004).

Moreover, many researches in the field of educational administration demonstrated that 21st skills were necessary for the educational administrators (Bozkurt, Çoban, & Kan, 2019; Coffin, 2004; Podmostko, 2000). However, in the literature review, there was no research on the relationship between school administrators' strategic leadership behaviors and their 21st century skills. This research was conducted to address this gap in the literature and to determine the skills that school administrators need to demonstrate strategic leadership.

Managerial Framework

21st Century Skills

Skills introduced by Robert Katz in the 50s provide an important basis in studies on education administrators’ skills studies. Managerial skills of education administrators mostly include basic skills related to knowledge of regulation and administrative field, and it is stated as “conceptual skills.” Another skill includes the relationship with people and is defined as human relations skills in literature. Lastly, there are professional and technical skills which include technical and professional skills related to the administrative field, and it is called “technical skills.” Although this classification is also widely being used these days, it requires to be reviewed due to the innovations of the age and the change in the human resource type needed (Ağaoğlu, Altinkurt, Yılmaz, & Karaöse, 2012). As a result of this need, many institutions developed different frameworks. Especially educational institutions also redesigned their education administrator skills to meet this need (Silva, 2008). “Higher-level skills” or with its commonly used name “21st-century skills” include skills such as problem-solving, creative thinking and innovation, having a critical perspective, communication, being literate (media, ICT, etc.), adaptation to conditions and environment, entrepreneurship and productivity (Vockley & Lang, 2008). These skills are discussed in three dimensions: “learning and innovation skills,” “literacy skills,” and “life and professional skills.” Learning and innovation skills are the skills that reveal the mental depth of the education administrator and determine what type of work environment she/he should be created with his/her employees. These skills require that individual be creative, work for innovation, have a high level of critical thinking and problem-solving skill, and be able to communicate and collaborate. Literacy skills cover the skills to determine the administrator’s literacy skill levels in various fields. The 21st-century administrator should know, with information literacy, where information comes from and how important it is in terms of managerial aspect; s/he should analyze, with media literacy, news and topics
in media; s/he should endeavor, with technology literacy, to disseminate technology use and culture within organization. Last skill group, life, and professional skills focus on the managerial skills of the education administrator, and the administrator is expected to demonstrate self-management, use initiative, be productive, account for the work and operations s/he carries out, take responsibility for his/her work, and demonstrate a flexible management approach (Vockley & Lang, 2008).

In creativity and innovation skills, the administrator should be sensitive to different points of view, understand how ideas might be adapted to the real world and originality and creativity should not be limited in his/her works. Besides, s/he should use the information or products produced to implement the innovations in the field, without fear, and with great courage to make a concrete and useful contribution (Vockley & Lang, 2008). In critical thinking and problem-solving skills, education administrator should make the right choices and decisions in complex situations and understand the relationship between different variables related to the problems in the institution, ask right questions to see different solutions and to find best solutions and carry out analyses and synthesis to solve the problems (Cottrell, 2005). In communication skills, education administrators should communicate well with the people inside and outside of the institution and be open to listening; the ability to convince with communication should be high. In cooperation skills, one of the learning and innovation skills, the administrator should promote teamwork, provide support the aid needed to reach the common goal, and know the capacity of each team member and see how much s/he is able to contribute. In literacy skills, an education administrator should know how to reach information and use it efficiently in a legal and ethical framework (Demiralay & Karadeniz, 2008). Education administrators having the media literacy skill should be aware of which media messages are given for which objective. In media literacy, first, media messages should be perceived and interpreted correctly and evaluated whether the information is real or fictional with a critical point of view. More importantly, s/he should be aware of the direction and management power of media on people (RTUK, 2016). An education administrator having a technological literacy should efficiently use digital technologies in creation, evaluation, and management and access of knowledge and have a deep understanding of the legal/ethical framework during this use (Odabaşı, 2000). The skills that the education administrator should demonstrate in terms of flexibility and adaptation under social and professional skills are easy accommodation to the environment, easy adaptation to different roles and responsibilities, efficient working in the face of changing priorities and uncertainties (Ceylan, 2001). Relating to the skills of initiative and self-management, an education administrator should determine his/her own development needs of him/her and his/her institution’s, be able to manage the time and work well, and be able to use initiative to achieve the goals of the organization. In social and cultures skills, the administrator should know the differences between his/her employees and embrace them with respect. S/he should know that differences are opportunities to make innovations. An education administrator should be open to people inside and outside of the institution due to his/her authority and responsibilities and undertake the responsibility of failures in consequence of his/her authorities and responsibilities. S/he should manage the process well and be able to act in the direction of the plans s/he makes with employees in order that the institution attain goals (Schater, 2000). Under the leadership and responsibility skill, education administrator should lead the employees working in the institution in solving their problem, be leverage in achieving common goals, do his/her best to fulfill his/her duty and inspire his/her employees by acting honestly and ethically (Vockley & Lang, 2008).

Strategic Leadership

Strategic leadership first appeared in Hambrick and Mason’s Upper Echelon Theory (1984). In this theory, it was revealed that strategic decisions taken by senior managers affect the performance of the institutions dramatically. In their research they made Wheelen and Hunger (1986) detected that senior managers have an important responsibility and the decisions they make direct the climate of the organization. These studies show that employees act according to the strategic decisions made by senior managers and follow the vision put forth about the future. Therefore, decisions are taken by strategic leaders, and the vision they present affect the institution and employees positively or negatively.
Primarily, strategic leaders should determine the top goal. Then, they should exhibit a model that shows the way for employees to reach this top goal. Finally, the strategic leader should put high-performance standards for his/her employees and believe and trust them in achieving these standards. Shortly, strategic leaders should create a vision and proceed in this direction with employees to achieve this common goal in trust and belief.

Strategic leaders should have a strategic thinking skill to overcome the obstacles while moving towards the shared common vision and have a good plan. In strategic thinking, one of the strategic leaders’ skills, the importance of strategic thinking and long-term returns are two main elements. The importance is to be able to choose among very important, important, and less important. In long-term returns, it is necessary to see the long-term gains instead of short-term gains and make the choice for long-term gains (Adair, 2005; Hambrick & Mason, 1984). While other leaderships could address to all people from all levels and locations of an institution, strategic leadership only addresses to senior managers of the institution (Vera & Crossan, 2004). While Barron, Henderson, and Newman (1995) stated that strategic leadership is for senior managers of the institution since only senior managers take the decisions about the institution’s future, Davies, Davies and Ellison (2005), by moving one step ahead stated that strategic leadership includes many leadership types.

Pisapia Guerra and Semmel (2005) developed a scale based on what has been revealed in the literature on strategic leadership. This scale consists of five dimensions and comprises many leadership types as literature suggests. One of the dimensions of this scale was described as “bartering,” and it stands for the institution’s managing its relationships with the environment. Another dimension was defined as “managing,” and it includes issues related to the subjects about managerial leadership of the institution. “Bonding” includes the ethical aspect of the strategic leader. “Bridging” includes improving bonds and political leadership works. “Transforming” stands for the transformational behavior of the leader (Altinkurt, 2007; Aydın, 2002; Elma, 2010; Klinçkaya, 2013; Uğurluoğlu & Çelik, 2009; Ülker, 2009). Turkish versions of sub-dimensions were given below:

Transformational leadership, Bass developed a “multiple leadership scale” to measure transformational leadership and has done research on this subject (Burnes, 2004). Cemaloğlu (2013) states that the leader exhibiting leadership behavior in this direction should give authority and responsibility to the employees to reach the common vision of the institution while explaining the transformational leadership concept. It is the fundamental duty of the transformational leader that each employee develops a common understanding in transforming the institution’s culture in line with a common vision and, along with the culture of the institution, make the transformation of the minds of the employees. When managerial leadership, another sub-dimension strategic leadership, is examined, it is seen that the managerial leader must ensure stability and order, and they focus on accomplishing daily activities and short-term goals (Mullins, 1996). They negotiate and bargain and do not avoid using awards, punishments, and other pressure styles for their employees (Hoy & Miskel, 1991). Another dimension of strategic leadership is ethical leadership putting forth the character and temperament of the leader (Aydin, 2002). Ethical leadership includes that the leader grounds his/her decisions on norms, values, and universal principles, and s/he can take these into account in the decisions and results that will come (Yukl, 2002). Another dimension of strategic leadership, political leadership requires political behaviors. In political behaviors, goals and interests of the institution are at the forefront, and the leader negotiates, discusses, comes to an agreement, and acts for win-win based (Mullins, 1996). Leader promotes teamwork in the institution and plans activities, increasing the interaction between people through his/her political skills. Here the goal of the leader is to make regulations and develop strategies to ensure that the organization displays an effective performance. These policies are not only for the inside of the institution but also for its relationship with the environment. Leader contributes to the institution’s longer life by providing flexibility and adaptation to the environment (Adair, 2005). Another dimension, relational leadership, is a type of leadership focusing on relations. The goal of this leadership is to build up powerful alliances and relationships based on the reciprocity principle. These relationships include both relationships with the employees and external stakeholders. The leader must always follow
the win-win policy by acting in the principle of mutual dependence. The leader should make this fortification, not for his/her interest but the goal of the institution. Besides, S/he should use his existing relationships for the goals of the institution (Pisapia, 2009).

In addition to having these skills, education administrators should improve themselves managerially and put forth leadership behaviors to exhibit their skills. While production and efficiency-focused approach is in question in agricultural and industrial society, it has become important to keep up with the requirements of the age quickly and transform both himself/herself and his organization as a manager (Bass & Avolio, 1993). Therefore, leadership types such as transformational leadership (Bass & Avolio, 1993; Cemaloğlu, 2013), strategic leadership (Pisapia et al., 2005), and technological leadership (Çalık, Çoban, & Özdemir, 2019) have become important in the center of the researches about the administration. Turkish national education system has also been going through a change and transformation in parallel with the developments in the world. In this research, whether the education administrators have the necessary skill and leadership behaviors to implement this change and transformation will be discussed.

Principals’ 21st century skills and strategic leadership behaviors

School administrators must have particular skills to become an administrator. These people at the head of the educational institutions that play a major role in building the future generations and societies should demonstrate transformational leadership skills and behaviors that will transform both themselves and their institutions (Robbins & Judge, 2013).

In research conducted in Turkey, it was stated that the institutional change could be carried out by powerful administrators with superior skills (Tunçer, 2011). A research done in Holland dwelled on certain characteristics of the school leaders. The result of this research showed that the school administrator must be interrogative, an individual with good data skills, and have a leadership capacity to transform the culture in the school (Geijsel, Krüger, & Sleegers, 2010). In another research conducted, administrator types were divided into three according to their skills. While the manager as a technician is a term usually defining an administrator with technical and professional skills, the manager as conductor defines the administration of the whole work and operation in the institution. The third skill, manager as a developer, presents the type of administrator who can carry the institution into the future (Harris, 1986). Considering which one of these administrators’ leadership behavior could transform the institution better, it was revealed that manager as developer could perform transformation better by enhancing the change capacity of the group members with this vision, by raising awareness of conducting the change together and by authorizing the group members when needed, and by giving them initiative. In research examining the skills of administrators in the higher education field in Turkey, the role of administrators was dwelled on. The first of these roles is the relationships’ role. While this role describes the role of the manager in the organizational relations, the decision-making role emphasizes the strategic decision-making role that will be taken in the management of organization. The last administrator role is the information role and it is important to share with the employees the work and actions carried out within the organization. As these roles in higher education are not adequately displayed in Turkey, it is determined that change and transformation in universities cannot be properly provided (Ulukan, 2005). As it was revealed both in the researches mentioned and, in the literature, the administrator must have some certain skills to prepare his/her institution to the future and transform it. Besides, s/he should exhibit efficient leadership behavior to transform the institution. Only when these two powers are together could transform and change the institution.

Exhibiting efficient leadership behavior and transforming the institution are not given much importance while selecting the school administrators in Turkey. School administrators are selected among teachers, training about school management are either not given at all or in a very little way. They usually learn how to become an administrator from others’ experiences or their own experiences.

In addition to this, the selection of teachers in Turkey, and even the selection of support staff for schools are not vested in the school management. School administration has very limited authority, both
managerially and financially, yet it has unlimited duty and responsibility. In this confined space managing the school properly is quite hard. More importantly, the school administrators both should be equipped with the 21st-century skills and have the leadership skills that will carry school into the future in the educational institutions where the individuals of the future are being raised. This study would shed light on school administrators in this narrow space, raise awareness in their self-improvement, and be an insight into how they can transform their school by developing understanding in the limitedness of their financial and managerial authority. School administrators examining this study would have detailed information about 21st-century skills and strategic leadership behavior and awareness to improve these skills and leadership behaviors in themselves. This study aims to indicate the relationship between school principals’ level of 21st-century education administrator skill levels and strategic leadership behavior according to teachers’ views. Accordingly, the following questions will be addressed.

1. What is the level of principals’ 21st-century skills?
2. What is the level of principals’ strategic leadership behavior?
3. Is there a statistically meaningful relationship between the principals’ 21st-century education administrator skill level and strategic leadership behavior?
4. Does the principals’ level of 21st-century educational administrator skills predict their strategic leadership behaviors?

Method

Research Design

A correlational survey model was used in this quantitative research in order to determine the relationship between 21st-century education management skills levels of principals and their strategic leadership behaviors according to teachers’ views. As Karasar (2015) stated “the relational screening model” is a research model to detect the relationship between two variables.

Population and Sample

The population of the study consisted of 22,958 teachers working in primary and secondary schools in Akyurt, Altındağ, Çankaya, Gölbaşı, Keçiören, Mamak and Yenimahalle districts of Ankara in 2016-2017 academic year. It comes out that 378 teachers could represent this population of 22,958 people at $\alpha = 0.05$’ significance level (Balcı, 2011). “Stratified sampling” method was used in the research. Stratified sampling is a method where the subgroups in the population are guaranteed to be represented in the sample (Balcı, 2011). In this context, while forming the strata, districts were stratified to ensure that the research serves the purposes, and teachers were selected with a random sampling method. A number of the teachers working in official primary and secondary schools in the districts participating in the research and sample numbers calculated considering these numbers are given in Table 1.

Table 1.
Number of the Teachers Working at Primary and Secondary Schools in the Districts.

<table>
<thead>
<tr>
<th>Districts</th>
<th>Number of teachers in the Universe</th>
<th>Number of teachers in the sample</th>
<th>Number of teachers participating in the research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Akyurt</td>
<td>234</td>
<td>4</td>
<td>19</td>
</tr>
<tr>
<td>Altindag</td>
<td>2610</td>
<td>41</td>
<td>42</td>
</tr>
<tr>
<td>Çankaya</td>
<td>4600</td>
<td>76</td>
<td>107</td>
</tr>
<tr>
<td>Gölbaşı</td>
<td>3096</td>
<td>53</td>
<td>78</td>
</tr>
<tr>
<td>Keçiören</td>
<td>5235</td>
<td>87</td>
<td>89</td>
</tr>
<tr>
<td>Mamak</td>
<td>3419</td>
<td>57</td>
<td>59</td>
</tr>
<tr>
<td>Yenimahalle</td>
<td>3764</td>
<td>60</td>
<td>70</td>
</tr>
<tr>
<td>Total</td>
<td>22958</td>
<td>378</td>
<td>464</td>
</tr>
</tbody>
</table>

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Data Collection Tools

**Education Administrators’ 21st Century Skills Scale:** Education Administrators’ 21st Century Skills Scale developed by Çoban, Bozkurt and Kan (2019) was used to measure the 21st-century skill levels of education administrators. This scale consists of 95 items related to 12 dimensions, which could be gathered under three basic skills. Learning and innovation skills dimension has four subdimensions: creativity and innovation, critical thinking and problem solving, communication and collaboration. Literacy skills dimension has three subdimensions: information literacy, media literacy and technological literacy. Life and professional skills dimension has five subdimensions: self-management and initiative, productivity and accountability, leadership and responsibility, flexibility and easy adaptation, and social and intercultural skills. Education Administrators’ 21st Century Skills scale is a five-point Likert scale. The scale has statements such as “s/he fairly treats his/her employees under his/her management,” and “s/he shares information with employees”. Researchers reperformed the analysis needed to ensure the scale’s validity and reliability for this research. Confirmatory factor analysis was performed as a second order. Values in the analysis were found equal and close to the breakpoints. \( \chi^2 = 9803.03 \) df=3506, p>.05 and \( \chi^2/df \) value 2.70 good fit; RMSA = .06 good fit; SRMR = .04 perfect fit; NFI = .99 perfect fit; NNFI = .99 perfect fit; CFI = .99 perfect fit. The Scale’s Cronbach Alpha value was calculated as .98. In light of this data, it could be stated that the scale’s validity and reliability are ensured for this research.

**Strategic Leadership Scale:** According to the views of the teachers participating in the research, Strategic Leadership Scale developed by Pisapia et al. (2005) and adapted to Turkish by Çoban (2016) was used. This scale consists of 35 items and five dimensions as managerial, ethical, political, transformational, and relational leadership. Among the scale’s items, there were statements like “they develop alliances outside the institution” and “they contact people who might be influential in the works being conducted.” take place. Researchers performed the analysis needed to ensure the scale’s validity and reliability for this research. Values in the confirmatory factor analysis were found equal and close to the breakpoints \( \chi^2 = 1253.45 \) df= 550, p>.05 and \( \chi^2/df \) value 2.30, good fit; RMSA = .05 good fit; SRMR = .07 good fit; NFI = .97 perfect fit; NNFI = .97 perfect fit; CFI = .97 perfect fit). Cronbach Alpha value was calculated as .96 in the analysis. In light of these data, the scale’s usability for the research was tested.

Data Collection and Analysis

Data were collected from 464 teachers working in Ankara in the 2016-2017 academic year. First, official permission was obtained from Ankara Provincial Directorate for National Education. Then, the teacher lists, according to districts, were obtained. Teachers were randomly selected from each district list as many as in the sample. In this method, while a researcher was moving his/her finger on the list, the other researcher gave the “stop” command with his/her eyes closed, and the pointed teacher was written on the sample list. Thus, a total of 600 teachers were selected. With the help of the district directorate of national education, these teachers were reached, and they were informed about the goal of the research and the importance of the data quality in the research. Due to a voluntary basis, all the teachers did not participate in the research; a total of 464 teachers took part in this research according to a voluntary basis.

Before linear regression, linearity, multivariate normal distribution, and multicollinearity hypotheses were tested (Tabachnick & Fidel, 2007). First, normality tests were done to detect whether the collected data is suitable for the multivariate statistical calculations. The average of the data obtained from education administrators’ 21st-century skills scale was 3.87, and the median was 3.98, the kurtosis value was .71, and the skewness value is .36. The average of the data obtained from the Strategic Leadership Scale was 3.92; the median was 4.00, the kurtosis value was -.73, and the skewness value was .35. The kurtosis and skewness values being within ± one and the mean and the median being close to each other prove that the data show normal distribution. For the linearity of the data, the scatter plot was checked, and it was found to be elliptical. Homoscedasticity was examined for the suitability of multivariate data, and variance-covariance matrices were analyzed. As a result of the analysis, the Box
M test was not significant. It shows that matrices are not homogenous (Çokluk, Şekercioğlu, & Büyüköztürk, 2012). Finally, correlation values of the scales were examined for the multi-collinearity problem. Regression analysis was conducted to reveal whether the levels of principals’ 21st skills predict their strategic leadership behaviors.

Results

In this section, the analysis results related to the sub-problems of the research were given. Table 2 indicated that principals’ 21st-century skills levels and their strategic leadership behavior levels.

Table 2. Principals’ 21st-Century Skills Levels and Their Strategic Leadership Behavior Levels.

<table>
<thead>
<tr>
<th></th>
<th>( \bar{X} )</th>
<th>Sd</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creativity and innovation</td>
<td>3.79</td>
<td>.92</td>
</tr>
<tr>
<td>Critical thinking and problem solving</td>
<td>3.68</td>
<td>.88</td>
</tr>
<tr>
<td>Communication</td>
<td>3.87</td>
<td>.93</td>
</tr>
<tr>
<td>Cooperation</td>
<td>3.88</td>
<td>.90</td>
</tr>
<tr>
<td>Learning and Innovation Skills</td>
<td>3.80</td>
<td>.83</td>
</tr>
<tr>
<td>Information literacy</td>
<td>3.87</td>
<td>.83</td>
</tr>
<tr>
<td>Media literacy</td>
<td>3.99</td>
<td>.97</td>
</tr>
<tr>
<td>ICT literacy</td>
<td>3.93</td>
<td>1.05</td>
</tr>
<tr>
<td>Literacy Skills</td>
<td>3.93</td>
<td>.84</td>
</tr>
<tr>
<td>Self-management and initiative</td>
<td>4.01</td>
<td>1.02</td>
</tr>
<tr>
<td>Productivity and accountability</td>
<td>3.94</td>
<td>.85</td>
</tr>
<tr>
<td>Leadership and responsibility</td>
<td>3.93</td>
<td>.96</td>
</tr>
<tr>
<td>Flexibility and adaptability</td>
<td>3.82</td>
<td>.90</td>
</tr>
<tr>
<td>Social and Intercultural Skills</td>
<td>3.93</td>
<td>1.01</td>
</tr>
<tr>
<td>Life and Professional Skills</td>
<td>3.92</td>
<td>.85</td>
</tr>
<tr>
<td>Managerial</td>
<td>4.02</td>
<td>.78</td>
</tr>
<tr>
<td>Transformational</td>
<td>3.86</td>
<td>.95</td>
</tr>
<tr>
<td>Ethic</td>
<td>4.00</td>
<td>.87</td>
</tr>
<tr>
<td>Political</td>
<td>3.91</td>
<td>.85</td>
</tr>
<tr>
<td>Relational</td>
<td>3.84</td>
<td>.89</td>
</tr>
<tr>
<td>Strategic Leadership</td>
<td>3.92</td>
<td>.77</td>
</tr>
</tbody>
</table>

When Table 2 is examined, it can be observed that the principals “generally” exhibited the learning and innovation skills, literacy skills, professional and life skills, which are the main dimensions of the 21st-century skills, and at the same time, they also “generally” showed strategic leadership behavior could be observed. When Table 2 was reviewed, it was seen that among the 21st-century education administrator skills were determined, and school administrators exhibited relatively the highest level of self-management and initiative using behavior \( (\bar{X} = 4.01) \) and they exhibited the lowest level of critical thinking and problem-solving behavior \( (\bar{X} = 3.68) \). It was indicated that while school administrators exhibited relatively the highest level of managerial leadership behavior \( (\bar{X} = 4.02) \), they exhibited relatively the least of transformational leadership \( (\bar{X} = 3.86) \) and relational leadership \( (\bar{X} = 3.84) \) dimensions behaviors.

Based on these findings, it could be stated that while school administrators have higher-level skills in self-improvement and the improvement of their institutions, they exhibit lower skills in solving problems and handling the events from a critical point of view. Besides, when the strategic leadership behaviors are examined, it could be stated that while they exhibit skills in managerial leadership, their skills in building up relationships and transforming the organization within the framework of win-win policy are relatively low.
Table 3.
Correlation between Principals’ 21st-Century Skills and Strategic Leadership.

<table>
<thead>
<tr>
<th>corret</th>
<th>critic</th>
<th>comm</th>
<th>copee</th>
<th>info</th>
<th>media</th>
<th>tekno</th>
<th>initi</th>
<th>accou</th>
<th>lead</th>
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</table>

**. Correlation is significant at the .01 level (2-tailed).

Table 3 indicates that there is a positive medium level relationship between all dimensions of managerial skills and all the strategic leadership dimensions. When the managerial leadership dimension which is the sub-dimension of strategic leadership behavior is taken into consideration, it was detected that there is a positive medium level relationship between creativity dimension (r = .59, p < .01), critical thinking dimension (r = .60, p < .01), communication dimension (r = .63, p < .01) and cooperation dimension (r = .63, p < .01) When the managerial leadership dimension and literacy dimensions are examined, a positive relationship could be observed at medium level: information literacy (r = .56 p < .01), media literacy (r = .59 p < .01), technology literacy (r = .61 p < .01). In addition, significant relationships were found between social and professional life dimensions and managerial leadership: using initiative (r = .61 p < .01), accountability (r = .66 p < .01), leadership and responsibility (r = .65 p < .01), flexibility (r = .65 p < .01), respect for social and cultural differences (r = .60 p < .01). Similar relations could be observed between other sub-dimensions of strategic leadership, transformational leadership, ethical leadership, political leadership, relational leadership, and 21st-century education administrators’ skills. Based on these findings, it could be said that as the school administrators’ 21st-century skills increase, their strategic leadership behavior increases as well.

As is seen in Table 4, the education administrators were in significant relations with strategic leadership behaviors within the scope of 21st century skills; managerial leadership (R² = .53, p < .05), transformational leadership (R² = .58, p < .05), ethical leadership (R² = .73, p < .05), political leadership (R² = .62, p < .05) and relational leadership (R² = .70, p < .05) dimensions. According to the regression analysis, significant predictors of managerial leadership behavior were information literacy β = .24, p < .05), technological literacy β = .12, p < .05), accountability β = .13, p < .05), leadership and responsibility β = .15, p < .05). Significant predictors of transformational leadership behavior were accountability (β = .16, p < .05), respect for social and cultural differences (β = .11, p < .05). Significant predictors of ethical leadership behavior were communication (β = .21, p < .05), using initiative (β = .11, p < .05), leadership and responsibility (β = .12, p < .05) and respect for social and cultural difference (β = .22, p < .05). The last of the strategic leadership behaviors were significant predictors of relational leadership (β = .12, p < .05), cooperation (β = .16, p < .05) and respect for social and cultural differences. (β = .19, p < .05). In the light of these findings, it could be said that as the level of exhibiting the skills in information literacy, technological
literacy, accountability, leadership and responsibility increases, managerial leadership behaviors would be better. Besides, as the level of accountability, respect for social and cultural differences increases, transformational leadership behaviors would develop as well. In order to improve ethical leadership behaviors, communication skills, using initiative and exhibiting responsibility skill and respecting for social and cultural differences must be taken care of. Taking more initiative, showing flexible management and paying attention to social and cultural differences would improve school administrators’ political leadership behaviors. Increasing the relational leadership behaviors of school administrators is made possible by communication, cooperation and respect for social and cultural differences.

### Table 4.
Regression Analyses Result of 21st-Century Skills and Strategic Leadership.

<table>
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<tr>
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**Discussion, Conclusion & Implementation**

One of the most important findings of this research focusing on the relationship between 21st education management skills of principals and their strategic leadership behaviors is that administrators exhibit relatively the highest level of self-management and initiative using behaviors among the determined 21st-century education administrator skills, while they exhibit critical thinking and problem-solving skills the least. School administrators have a very important duty in raising future generations and making them gain 21st-century skills. Relative self-management of administrators in Turkey and their behavior of initiative use could stem from the dynamics of professional life. There is no other fund for the schools in Turkey except the fuel, repair, and maintenance funds supplied by the government. In these circumstances, school administrators have to create their financial resources and maintain the educational activities of their schools.

Along with this, while the duties and responsibilities of school administrators are very much in Turkish education system, their powers remain quite limited (Açıkalın, 1995). Thus, school administrators execute their duty by using their self-management and using initiative skills more under the social and professional skills of 21st century skills. Relative use of initiative and self-management behaviors that exhibit school administrators are in parallel with the study done by Erdoğan (2006). In the aforementioned study, it is stated that school administrators should balance between the people and duty in order to stand out and execute his mission properly and s/he should establish his/her management model by considering this balance. Besides, it is stated that acting by using initiative is one of the most important attitudes of school administrators. The reason why school administrators showed relatively less problem solving and critical thinking skills in the field of learning might be due to the fact that the reason that they have not come across with approaches about how to use this skill in their
learning and professional life. Turkish education system adopted to teach the knowledge in a didactical way in the past as stated in 2023 vision document as well. Today’s society needs to raise individuals who learn to learn, know how to acquire knowledge and can transform the information they have obtained. They way to do this is not to memorize the knowledge, but to develop problem solving, creative thinking, critical thinking skills by using different methods and means (MEB, 2019; Vockley & Lang, 2008). It was determined that while school administrators exhibit the highest level of managerial leadership behavior, which is the sub-dimension of strategic leadership they exhibit the relational leadership behaviors relatively the least.

Showing more managerial leadership behavior could stem from the fact that work done goes around legislation and regulations all the time, and management is learned much through experience and observations in Turkey. As Harris stated, school administrators should be evaluated in a ternary classification. School administrators in Turkey are neither fall into the technical leader classification nor the transformational, progressive leader classification as Harris revealed. They are mostly suitable for relational leadership behaviors relatively the least. Even if both school administrators and senior education managers receive qualified education in the field of education management, this is not a criterion while selecting, appointing, and replacing school managers. This is an indication that education administration is not seen as a profession in Turkey. Education administrators master their profession not by receiving training beforehand, but usually by seeing it from other administrators or by experiencing it themselves. This is seen as the biggest obstacle for education administrators to exhibit transformational and progressive leadership behaviors. One of the reasons why the exhibition of relational leadership behavior is relatively low results from the lack of extensive executive training. Based on relational leadership, there are basic behaviors, such as establishing a network of internal and external relations and creating trust. To be able to exhibit this behavior, having high-level communication skills and accountability to create trust, and conducting transparent and open policies are needed. In Turkish public administration, open communication systems, accountability, and transparent management are not fully functioning. (Eryılmaz & Biricikoğlu, 2011). Improving administrator capacity is the most effective way to solve this problem.

Education administrators’ 21st-century skills are in a meaningful relationship with all subdimensions of strategic leadership behaviors. According to analysis results, meaningful predictors of managerial leadership behavior are information literacy, technological literacy, accountability, leadership, and responsibility. This shows that as the level of information literacy, technological literacy, accountability, and exhibiting responsibility from the 21st-century skills increase, managerial leadership behavior might be better. In the study of Harris (1986), the goal of the managerial administrator is to manage the works and act in line with the purposes of the institution. Thus, being responsible, accountable, technology literate in order to be effective with employees and the environment are extremely expected. In the study by Güçlü, Çoban, and Atasoy (2017), it was stated that making rules, making arrangements, and ensuring the functioning of the organization underlie the managerial leadership behavior.

Relative predictors of transformational behavior are accountability and respect for social and cultural differences. As the levels of accountability and respect for differences increase, exhibiting the transformational leadership behavior will improve as well. The transformational leader first transforms the culture of the school and make the institution a learning institution. Thus, it is natural that respect for social and cultural differences skill stands out. The transformational leader aims to transform his/her team’s mind and show them the target according to the shared vision. It is the most important element that s/he builds trust with his/her employees while proceeding toward this target (Cemaloğlu & Çoban, 2019; Önk & Cemaloğlu, 2016).

Ethical leadership behavior is the use of initiative, leadership, and responsibility, and respect for social and cultural differences. Education administrators need to increase their communication skills,
have conditions that will enable them to use initiative, and pay more attention to respecting social and cultural differences with their leadership and responsibility skill in order to improve their ethical leadership behaviors. Ethical leadership is in close relationship with institutional culture and cultural leadership in the basis. The conclusion that these skills are necessary for this leadership behavior corresponds to Helvacı (2010) study. In the school culture that will be built with a common mind in the school, the school principal’s emphasis on team work and thus transferring some of his/her authority to the teams will contribute to the initiative use of school employees. In the teams, social and cultural differences would be brought together to create an opportunity for teamwork to produce rich products and more importantly, these individuals who work together for a common purpose would respect social and cultural differences of each other due to team spirit (Scribner, Sawyer, Watson, & Myers, 2007). Moreover, the school principals would encourage his/her employees to participate in decision-making processes and support them to take responsibility for the school’s work and operations (Jones, 1997). Thus, schools will take one step towards team work, taking responsibility and using initiative to become a learning organization as stated by Senge (2002).

Meaningful predictors of political leadership behavior are using initiative, flexibility, and respect for social and cultural differences. School administrators’ taking more initiative, managing more flexibly, and giving importance to social and cultural differences would improve their political leadership behavior more. Especially, political leaders are in communication with internal and external stakeholders. Therefore, being flexible, respect for social and cultural values, and using initiative for the organization are at the forefront. Uğurluoğlu and Çelik (2009) revealed similar characteristics in their study. When the school administration and the school together exhibited these organizational behaviors in general, the change, transformation, and adaptation of the school to the environment would be at the highest level (Harris & Muijs, 2004). It is believed that the school, which is an open social system will meet the requirements of the age thanks to its flexibility, individuals having the opportunity to use initiative, and individuals respecting social and cultural differences.

Communication, cooperation, and respect for social and cultural differences are significant predictors of relational leadership, the last one of the strategic leadership behaviors. The ways to increase the relational leadership behaviors of school administrators are communication, cooperation, and respect for social and cultural differences. These results coincide with the study of Uğurluoğlu and Çelik (2009). The horizontal, bottom-up, and top-down communication channels built in the school are very important for the operation of the school and the school administrator to better explain the common goals and objectives. If there are no open communication channels in an organization, the gossip culture would become widespread in that organization (Eroğlu, 2005). However, if jobs are being done behind closed doors in this organization, this would harm the positive climate of the organization. It was not possible to talk about management in that organization in line with the principles of accountability and transparency (Şişman & Uysal, 2012).

This study reveals to what extent the school administrators working in schools in Turkey use their 21st-century skills and strategic leadership behavior. This study is limited to the answers given to the data collection tools and the perceptions of the teachers participating in the research. Thus, researchers may also have a one-to-one interview with school principals or take part in focus group discussions with decision-makers in the field of education administration. Thus, they could obtain more detailed information about c and strategic leadership behaviors of school administrators. Besides, to develop skills and increase leadership capacities of 21st-century skills of education administrators. Besides, training modules for training school principals can be designed in order to develop 21st century skills of education managers and to increase their leadership capacities. In line with the results obtained, trainings needed by school principals can be planned. Receiving these trainings and success points obtained in the trainings can be taken as basis for the selection and appointment criteria. Finally, As Orakci, Durnali, and Filiz (2019) expressed that for acquiring 21st-century skills to candidate teachers, policy makers should prepare course contexts and activities so, next generations of school administrators will be ready for 21st-century skills.
Giriş

Kavramsal Çerçeve

21. YY. Becerileri

Stratejik Liderlik


1. Okul müdürlerinin 21. yy. eğitim yöneticisi becerileri düzeyleri nasıldır?
2. Okul müdürlerinin stratejik liderlik davranışları düzeyleri nasıldır?
3. Okul müdürlerinin 21. yy. eğitim yöneticisi becerileri düzeyleri ile stratejik liderlik davranışları arasında istatistiksel olarak anlamlı bir ilişki var mıdır?
4. Okul müdürlerinin 21. yy. eğitim yöneticisi becerileri düzeyleri, stratejik liderlik davranışları yordamakta mıdır?

Yöntem

Araştırmanın Deseni


Evren ve Örneklem

Araştırmanın evreni Ankara’nın Akyurt, Altındağ, Çankaya, Gölbasi, Keçiören, Mamak ve Yenimahalle ilçelerinde 2016-2017 eğitim öğretim yılında İlkokulu ve Ortaokulu çalışan toplam 22.958 öğretmen oluşturmaktadır. Toplam 22.958 kişilik bu evren e =0.05’lik anlaşılması dişinde 378 öğretmenin temsil edilebileceğine dair anlamlı bir ilişki var mıdır?

Veri Toplama Araçları


Tablo1.
Araştırmaya Katılan İlçelerdeki Resmi İlkokul ve Ortaokulda Çalışan Öğretmen Sayılara göre Örneklem Seçimi.

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Verilerin Toplanması ve Analizi


Doğrusal regresyon öncesinde, doğrusal, çoklu normal dağılım ve çoklu doğrusal bağıntılı varsayımları test edilmiştir (Tabachnick & Fidel, 2007). Toplanan verilerin çok değişkenli istatistiksel hesaplamalar için uygun olugunu tespit etmek üzere ilk olarak normallık testleri yapılmıştır. 21. yy. EYBÖ’den elde edilen verilerin ortalaması 3.87, ortancası 3.98, basılık değeri -.71 ve çapıklik değeri .36 olarak hesaplanmıştır. SLÖ’den elde edilen verilerin ortalaması 3.92, ortancası 4.00, basılık değeri -.73 ve çapıklik değeri .35 olarak hesaplanmıştır. Basılık ve çapıklik değerleri ±1’ arasında ve bununla

**Bulgular**

Bu bölümde araştırmanın alt problemlere ilişkin analiz sonuçları verilmiştir. Tablo 2'de okul yöneticilerinin 21. yy. eğitim yöneticisi becerilerini sergileme düzeyleri ile stratejik liderlik davranış dengelerine ilişkin betimsel analizler yer almıştır.

**Tablo 2.**


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Tablo 2 incelendiğinde, okul yöneticilerinin 21. yy. becerilerinin ana boyutları olan öğrenme ve yenilik becerileri, okuryazarlık becerileri ile mesleki ve yaşam becerilerini “genellikte” gösterdikleri; aynı zamanda “genellikle” stratejik liderlik davranışları gösterdikleri yanlış anlamına gelmemelidir. Yine Tablo 2 incelendiğinde, okul yöneticilerinin belirlenen 21. yy. eğitim yöneticisi becerilerinden özyönetim ve inisiyatif kullanma davranışını (X̅= 4.01) görelen fazla gösterdikleri, eleştirel düşünce ve problem çözme davranışını (X̅= 3.68) ise en az gösterdikleri belirlenmiştir. Okul yöneticilerin stratejik liderliğinin
boyutu olan yönetsel liderlik davranışının (X̅ = 4.02) göreli en çok gösterirken, dönüşümü liderlik (X̅ = 3.86) ve ilişkisel liderlik (X̅ = 3.84) boyutundaki davranışları göreli en az gösterdikleri belirlenmiştir.

Bu bulgulardan yola çıkılarak, okul yöneticilerinin, kurumlarının ve kendilerinin gelişimleri konusunda daha üst düzey beceri sahipken, sorunları çözmeye ve eleştirel bakış açısıyla olayları ele alma konusunda daha düşük beceri gösterdikleri söylenebilir. Bununla birlikte stratejik liderlik davranışları incelendiğinde, yönetsel liderlik konusunda becerileri ortaya koyarken, çalışanları ve çevre ile ilgili politikalar çerçevesinde ilgi kurma ve örgütü dönüşürme konusundaki becerilerinin nispeten daha düşük olduğu söylenebilir.

Tablo 3.

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**p<.01.

Eğitim yöneticilerinin 21.yı. becerileri ile stratejik liderlik davranışları arasındaki ilişkiye gösteren Tablo 3 incelendiğinde, yöneticilerin yeteneklerinin tümü ile stratejik liderlik davranışlarının tümü arasında pozitif yönde orta düzeyde ilişki olduğu görülmektedir. Stratejik liderlik davranışının alt boyutu olan yönetsel liderlik boyutu ele alındığında bu boyut ile yaratıcılık boyutu (r = .59, p < .01), eleştirel düşünme boyutu (r = .60, p < .01), iletişim boyutu (r = .63, p < .01) arasında pozitif yönde orta düzeyde anlamlı ilişkiler belirlenmiştir. Yönetsel liderlik boylu ise okuryazarlık boyutları incelendiğinde de pozitif yönlü orta düzeyde ilgiler gözlemlenmiştir: bilgi okuryazarlığı (r = .56 p < .01), medya okuryazarlığı (r = .59 p < .01), teknoloji okuryazarlığı (r = .61 p < .01). Bu bilgileri mesleki yaşam boyları ile yönetesil liderlik arasında da anlamlı ilişkiler saplanmış: inisiyatif kullanma (r = .61 p < .01), hesap verebilirlik (r = .66 p < .01), liderlik ve sorumluluk (r = .65 p < .01), esneklik (r = .65 p < .01), sosyal ve kültürel farklılıklara saygı (r = .60 p < .01). Bunun yanı sıra sosyal ve mesleki yaşam becerileri ile yönetesil liderlik arasında da anlamlı ilişkiler saplanmış: inisiyatif kullanma (r = .61 p < .01), hesap verebilirlik (r = .66 p < .01), liderlik ve sorumluluk (r = .65 p < .01), esneklik (r = .65 p < .01), sosyal ve kültürel farklılıklara saygı (r = .60 p < .01). Benzer ilişkiler stratejik liderliğin diğer alt boyutları olan dönüşümü liderlik, etik liderlik, politik liderlik ve ilişkisel liderlik ile 21. yy. eğitim yöneticileri becerileri arasında da görülmektedir. Bu bulgulardan hareket etmek okul yöneticilerinin 21. Yı. becerileri arttırsa stratejik liderlik davranışları da artmaktadır denilebilir.

Tablo 4 incelendiğinde, eğitim yöneticilerinin 21. yy. becerileri, stratejik liderlik davranışlarından yönetesil liderlik (R² = .53, p < .05), dönüşümü liderlik (R² = .58, p < .05), etik liderlik (R² = .73, p < .05), politik liderlik (R² = .62, p < .05) ve ilişkisel liderlik (R² = .70, p < .05) boyutları ile anlamlı ilişkiler verdiği görülmektedir. Regresyon analizi görel, yönetesil liderlik davranışının anlamlı yordamaları, bilgi okuryazarlığı (β = .24, p < .05), teknoloji okuryazarlığı (β = .23, p < .05), hesap verebilirlik (β = .33, p < .05) ve liderlik ve sorumluluk (β = .34, p < .05) dönümsü liderlik davranışının anlamlı yordamaları hesap verebilirlik (β = .16, p < .05) ve sosyal kültürel farklılıklara saygı (β = .11, p < .05). Etik liderlik 418
dağılışın anlamlı yordayıcıları iletişim (β = .21), inisiyatif kullanma (β = .11, p< .05), liderlik ve sorumluluk (β = .12, p< .05) ve sosyal kültür farklılıklaraya saygıdır (β = .22, p< .05). Politik liderlik davranışına ait anlamlı yordayıcılar, inisiyatif kullanma (β = .12, p< .05), esneklik (β = .16, p< .05) ve sosyal kültür farklılıklaraya saygıdır (β = .12, p< .05). Stratejik liderlik davranışlarının sonuncusu ilişkisel liderliğin anlamlı yordayıcıları iletişim (β = .12, p< .05), işbirliği (β = .16, p< .05) ve sosyal kültür farklılıklaraya saygı becerileridir (β = .19, p< .05). Bu bulgular dışında okul yöneticilerinin 21. yy. Becerilerinden bilgi okuryazarlığı, teknolojik okuryazarlık, hesap verebilirlik ve liderlik ve sorumluluk becerilerini sergileme düzeyleri arttıktan beraber, uzun dönem liderlik davranışı ortaya köymenin birden fazla yolu da iletişim, işbirliği ve sosyal kültürel farklılıklara saygı duymaktan geçmektedir. Okul yöneticilerinin ilişkisel liderlik davranışlarını artırmanın etik liderlik davranışlarını geliştirmek için ise iletişim becerilerine, inisiyatif kullanmaya, liderlik ve sorumluluk becerilerini sergilemeye, sosyal ve kültürel farklılıklaraya saygı göstermeye daha çok önem verimeleri onların politik liderlik davranışlarını daha da geliştireceklerdir. Okul yöneticilerinin ilişkisel liderlik davranışlarını artırma yolunda, iletişim, işbirliği ve sosyal kültürel farklılıklaraya saygı becerileridir (β = .19, p< .05). Bu bulgular ışığında okul yöneticilerinin 21. yy. becerilerinin sosyal ve mesleki becerileri altında yer alan öz yönetim ve inisiyatif kullanma becerilerini daha fazla kullanarak görevlerini ifa etmektedirler. Okul yönetiminin başarılı olmak için

Tablo 4.

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Yöntel R= .73, R²= .53; F= 43.52 p<.05
Dönüşümü R= .76, R²= .58; F= 53.77 p<.05
Etik R=.86, R²=.73; F= 107.22 p<.05
Politek R=.79, R²=.62; F= 63.00 p<.05
İlişkisel R=.83, R²=.70; F= 87.57 p<.05

Tartışma, Sonuç ve Öneriler


Bununla birlikte, Türk eğitim sistemi içinde okul yöneticilerinin görev ve sorumlulukları çok fazla olmakla birlikte, yetikleri oldukça sınırlı kalmaktadır (Açıkalın, 1995). Okul yöneticilerinin bu yüzden 21.yy. becerilerinin sosyal ve mesleki beceriler altında yer alan öz yönetim ve inisiyatif kullanma becerilerini daha fazla kullanarak görevlerini ifa etmektedirler. Okul yönetiminin başarılı olmak için

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References


Altinkurt, Y. (2007). Eğitim örgütlerinde stratejik liderlik ve okul müdürlerinin stratejik liderlik uygulamaları [Strategic leadership in educational organizations and school principals’ strategic leadership applications].


