The Social Capital of Schools: Logistic Prediction Between Variables

Celal Teyyar Uğurlu

Abstract
The presence of social capital influences success and enriches the relationship networks between individuals. It can be said that the main goals of the social capital of schools is to increase the success of teachers and students. A logistic regression model, which is a relational study method, was formed within the context of this study. The study group consisted of 548 teachers who were employed in 47 secondary schools located within the Provincial Centre of Sivas Province. In this study, the compatibility level of the model was analyzed via the $R^2$ value. The $R^2$ value evaluates the power of relationship between the dependent variable and independent variable. McFadden, Cox-Snell, and Nagelkerke $R^2$ statistics are the most applied $R^2$ statistics. The obtained $R^2$ values were similar to those found by Cox and Snell (.333), Nagelkerke (.358) and McFadden (.153). When Nagelkerke value is analyzed, it reveals what percentage of the dependent variable is explained by the independent variables. As such, the independent variable explained 35.8% of the dependent variable. According to the results of the analysis, teachers’ perception of ethical leadership for their managers has some significant effects on their perception of social capital.

Keywords
Social capital
The social capital in schools
Regression
Logistic regression

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Introduction
Economic facts may be explained through the concepts of land, labor, enterprise, and capital as the four main production factors. However, those concepts may not be sufficient on their own, as analyzed to manage economic growth and development. As additional sources of economic development, the necessity to analyze political, environmental, technological, and human elements together may be accepted as a reality (Berber, 2004). In social sciences, capital is often defined as the capacity to create new jobs. Especially in the recent decades, however, the concept of social capital has begun to be applied to marketing organizations and different disciplines (Johnson, Seevers, & Darnold, 2015).

Amongst the production factors, the concept of capital is defined within many science disciplines. Capital refers to tools such as machines or factories, which are used to produce goods in economic science. However, capital, in terms of educational science, refers to “human capital” and investments in this. The school buildings, facilities, all tools and materials used in the school, and equipment are defined as capital (Karaküttük, 2010). Capital, which refers to basic goods, capital, assets, and wealth (Turkish Language Society [TDK], 2014), is a necessary element for growth.

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The four production elements as the basic variables of economic growth and development are influenced by the social facts, as well. According to Yıldız and Topuz (2011), although growth is defined quantitatively, development is defined rather qualitatively. The human factor, as an important factor, influences development and growth alongside social and cultural value judgments. The social capital that emerges from feelings of trust between individuals and institutions – and which differs from country to country, society to society, and even from region to region within the same country – has a distinctive place in realizing development.

As an element of production factors, capital, together with its other components, is influenced by human nature’s characteristics related to engaging in relationship and interaction. The features of production and consumption are under the effects of human behaviors as economic values. The value of human behaviors and several social elements such as trust, value, communication, and tolerance as their social reflection, may be enriched by additional value judgments to realize economic development. Other than four production factors, a lot of material and spiritual elements (technology, communication, human, science, culture, ethics, morals, and trust) are perceived as social capital.

The contribution of the human factor to the social and cultural aspects of development can be increased through schools within the education system. Investment in human resources is generally necessary for social development. According to Abu-Ghaida and Klasen (2004), the relationship between education and development level reveals the driving force of education. Poverty can be reduced while increasing economic growth through education. According to According to Comer (2015) people have begun to need social capital as well as physical capital so that they can sustain their lives in a healthy way and look after themselves and their families. Ferlander (2007) points out that sustainability of co-operative life can be increased with social capital networks such as information channels, support and social capital networks such as trust and norms. As a force that keeps things together, social capital can be strengthened through schools. According to Karagül and Dündar (2006), social capital signifies the affection in quality and quantity of the relationships in institutions. So, investment in human and social assets is seen as a key to success. Primarily associated with the concepts of confidence, norms, and communication; social capital becomes more visible through social leaders. Töremen (2002) thinks that school leaders are responsible for maintaining and developing the organizational social capital. According to Kowch (2004), social capital leaders can make effective the social network and connections among the social sectors that make up the school community and create a shared perception and common feelings, thus strengthening the social capital. In this way, they can put the social capital into practice to serve the purpose of organizational goals. Köybaşı, Uğurlu, and Güner (2017) pointed out that social capital contributes to schools in a number of aspects, one of which is school success. Bartlet and Ghosal (1994) stated that managerial behaviours might affect employee motivation and their organizational social capital positively direction (as cited in Pastoriza, Arino, & Ricart, 2008). It is assumed that the quality of outputs of an organization will be increased through managerial behaviours. As an organization, it is expected that the quality of schools will be further strengthened by managerial behaviours.

Nappi (2014) also points out that participative leaders in schools and teacher leaders have an important place in success of schools. Leaders play an important role in the development of individuals and institutions. One of these roles is social capital. In successful schools, managers share their leadership and school managers could also invest in social capital by sharing their leadership. Woolley et al. (2008) emphasize that school outcomes are affected from various variables and add that, in particular, surrounding conditions, families, and friends are influential on students’ learning and quality of life. Social processes experienced in schools are similarly influential on school outcomes.

The quality of production and consumption is related to human behaviour as an economic value. The value of human behaviours can be strengthened by value judgements such as communication and tolerance. Apart from the four production agents, many material and spiritual elements (technology, communication, human, science, culture, ethics, morality, trust) are regarded as social capital. Strengthening of social capital can be positively reflected particularly in the learning
qualities of students in schools. The effects on students may be possible through teachers as social capital carriers and distributors. Although there are a number of variables that affect teachers' social capital qualifications, the other variables such as professional seniority, gender, branch, and marital status of teachers are used for predicting social capital. The ethical and unethical impressions teachers receive from school, colleagues and managers as a social environment and the experiences that strengthen social ties such as trust, respect, loyalty and belonging can strengthen the school's social capital. Zheng, Wang, and Li (2011) places emphasis on the influence of leaders' loyalty to ethical values on long-term outcomes. Similarly, it is emphasized that social capital strengthens organizational communication and relations, and the relation between ethical leadership and social capital is highlighted. On the whole, it can be said that social networks and relationships among organizational staff strengthen social capital (Anderson & Weitz, 1992).

In this study, it is aimed to explain the factors affecting the social capital of the schools and the effect levels of the social capital of the schools because they are affected by different factors. For this purpose, the effects of ethical leadership, gender, seniority, marital status, occupational seniority and number of teachers, which are thought to affect social capital, are investigated.

The Concept of Social Capital

Various disciplines such as economics, management, politics, sociology, education, educational sociology, education management, and others contemplate and analyze the concept of social capital. According to Karagül and Dündar (2006), the social capital that reveals the quality and quantity of a relationship, depending upon the trust between institutions, is related to economic, social, and political success and stability in different societies. Thus, it is important and necessary to invest in humans and the development of social values.

For Woolcock and Narayan (2000), the concept of social capital was defined in the 1990s as norms and communication webs that keep human beings together. Some authors (Temple & Jonson, 1998; Whiteley, 2000) evaluate social capital together with four elements: communication, communication webs, synergy, and institutions. According to Field (2006), this concept stresses the relationship between people. The relationship between people culminates in people's mutual understanding and acceptance through established bounds of individuals. For Fukuyama (2001), social capital refers to informal norms and communication webs between two or more people. The bearers of social capital are honesty, commitment to tasks, and maintenance of trust.

The relationship between people may be enriched via communication. Social networks as catalysts of economic and social development and transformation have power to influence people. Employers in an organization may achieve successful and qualified results through social networks that empower sufficiency and desire cooperation (Fukuyama, 2001; Temple & Jonson, 1998; Goleman, 1998; Ekinci, 2008). Values that keep employers in an organizational environment together reflect the social capital of an organization. Li and Choi (2014) believe that social capital as a necessary element for change in organizations. The quality of the relationships among organizational staff is linked to the strength of the social capital in that setting.

Social capital may also be considered as a tool to achieve the desired consequences as constructing bonds between people, capitalizing upon several dimensions, such as trust, tolerance, norms, and communication. It can be discussed that human relations, organizational structure, and webs determine relations, and synergy has importance in the functioning of social capital. In organizations where people must work to engage in relationships, cooperate with each other, and need each other, social capital can be understood as a glue to keep institutions and organizations together. The concept of social capital emerged from a combination of a “social” rising, based on value and trust and capital as an economic value. While capital covers goods, tools, and materials, those are capable of producing values; it also refers to abstract conditions that influence output. According to Karagül and Masca (2005), social capital may lead to effective products through its dynamic and positive repercussions and via productive labor in societies.
The complexity of human relations creates a necessity for people to engage in relationships and interaction. Alongside dense knowledge accumulation and dissemination, a rapid process of change weakens social bonds between people. A qualified human relationship may be reached via a healthy communication, but the power of the communication process and communication webs positively influence the nature of relations.

**Education and the Social Capital**

Teachers’ and students’ commitment, trust, and quality of their relationship with school is achieved via the social capital in educational organizations (Cohen & Prusak, 2001; Foley & Edwards, 1999; Hargreaves, 2011). As institutions having a huge flow of entry and exit, schools have to reach, account for, answer to, and provide explanations to hundreds of people each day. Managers, teachers, and other staff continuously encounter different demands and questions in schools.

Changing paradigms and education system have already influenced the production of subsystems school. Demands for students’ being individuals able to adapt to the age of technology and science besides their academic achievement can also directly affect the economy and development. At school, teachers arrange the structured educational process with different methods, and school managers’ supporting and fundraising activities can be considered good steps to take towards the strengthening of social capital. In schools with a strong social capital, it is likely to raise productive, active and conscious individuals. It is expected that flourishing social capital in schools would also enhance economic growth and development.

Studies on the relationship between the capital and economic growth and development (Whiteley, 2000; Fukuyama, 2001) improve educational organizations via economic development. It also contributes to the development of the economy as a cycle. In modern societies, social capital has a significant place in explaining both economic performance and the efficiency of political institutions. The web of relations that depend on trust and are constructed by people who engage in mutual interaction exposes the level of social capital. Coleman (1988) mentioned distinctive elements of social capital as expectations and obligations, sources of sharing knowledge, and social norms. On the other hand, he talks about trust in obtaining knowledge as secondary in social capital. He refers to social norms as the third dimension. Social capital reinforces social norms via trust (Whiteley, 2000). Social capital requires volunteering and sacrificing in cooperative efforts without expecting any repayment.

The presence of social capital has an effect on success by improving the web of relationships between people (Johnson et al., 2015). It can be said that the primary aim of social capital in schools is to improve its effects on the success of teachers and students. It is likewise influential on job performance, job opportunities and professional development (Siebert, Kraimer, & Liden, 2001; Johnson et al., 2015). The high level of relationships in an organizational environment leads to the creation of bonds between people (Rindfleisch & Moorman, 2001; Chua, 2013). Social capital may be perceived as a tool in developing schools, as well (Bridwell-Mitchell & Cooc, 2016). Social capital may enhance the relationship between teachers. The relationship between teachers does not cover relationships only within schools, but also outside of schools.

It is a fact that human relations are predicted via their social effects, such as providing value, showing trust, being tolerant, and having empathy. Ekinci and Karakuş (2011) pointed out that social capital behaviours of school principals increase the social capital among teachers and they noted that it is essential that school principals behave in a way to allow collaboration, communication and trust among teachers looking at each other’s differences with indulgence. Departing from that, it can be clearly visible that school principals’ behaviours compliant with social capital would contribute to the development of social capital at school. There is a widely-held belief that social capital in schools can help improve academic and social success. The aim must be that social webs between managers, teachers and other staff at schools are effectively constructed, and trust and commitment between employers are established. Teachers’ perception of the schools’ social capital is important in terms of determining the place of social capital among employers in schools and devising new ways to improve
it. In this study, factors influencing teachers’ perception of the social capital and effects of various variables on the social capital are specified via the logistic prediction method.

**Method**

**Research Model**

In this study, a relational screening model was applied as the research model. The main goal of the relational approach is to determine the transformation of variables together or the relationship between variables (Karasar, 2015). A logistic regression model was constructed as a relational research model in this study.

The logistic regression is suitable for situations where the dependent variable is categorical or classified. Logistic regression is a method of analysis that is used to analyze categorical data. In this study, the logistic regression analysis was carried out to determine the combination of independent variables that would be utilized to teachers’ perception of social capital, as the dependent variable, in their schools. Thus, independent variables are listed as follows:

1. Professional seniority-continuous variable.
2. The number of teachers-continuous variable.
3. Ethical leadership-continuous variable.
4. Gender-discontinuous variable.
5. Specialty-discontinuous variable.
6. Marital status-discontinuous variable.

The dependent variable of teachers’ perception of the social capital was defined as a variable with three categories that reveal low, middle, and high levels of perception through a cluster analysis in two steps.

**Study Group**

The study group of this research was composed of secondary school teachers who were employed in 47 secondary schools located within the Sivas Central District. Scales were distributed to all secondary schools and administered to teachers who voluntarily completed the scales. Those suitable to be analyzed were chosen among these 592 scales, which were written by teachers, and accordingly, the 576 scales in total were registered to the data file. As a result of extreme value and missing value analysis applied to the data, 548 people were included in the study when the missing values were excluded from the analysis.

The study was implemented in the schools determined with cluster sampling in the central district of Sivas. As for distribution of the study group by the independent variables, were 300 female teachers and 258 males. As for branches of teaching, 315 of them were classroom teachers, while 233 others were in other branches. Regarding another variable, 416 participants were married and 132 single. As for professional seniority, there were 198 teachers in the range of 0-10 years of seniority, 186 teachers in 10-20 years, and 164 participants with seniority of 20 years and more. Lastly, the number of teachers in the school indicates that there were 186 teachers in schools with 25 and less teachers, 196 teachers came from schools with teachers between 26 and 40, and lastly 166 teachers came from schools with 40 or more teachers.

**Data Collection Tool**

As a data collection tool in this study, “the scale of social capital in schools” with 62 items, which was established by Ekinci (2008), was utilized. This scale is organized as a five-point Likert scale and is graded within the range of always, often, sometimes, rarely, and never. The obtained high point marks a high level of social capital. The reliability co-efficient of the scale of social capital was 0.96. As a result of the factor analysis, the Kaiser-Mayer-Olkin (KMO) value was 0.857 and the Bartlett’s test was significant. The social capital scale consisted five factors as commitment to the organization, communication-social interaction, cooperation, social webs and participation, trust and tolerance to
differences and shared norms. Those factors explained 69.95% of the total variance in the quantification tool.

**Data Analysis**

According to the points obtained from the scales related to teachers’ perception of social capital in schools, they were divided into three groups as low, moderate, and high levels. When they were divided into three groups, homogenous sub-groups were created through a “Cluster Analysis in Two Steps” (Kayri, 2007), considering that they might be from different communities.

The heterogeneous data set was divided to homogenous sub-groups with the cluster analysis in two steps. The Bayesian Information Criterion (BIC) was used to determine the number of sub-groups of the universe. Accordingly, the dependent variable was defined within three categories constituted by low, moderate, and high levels of social capital perception. The results of the cluster analysis related to the dependent variable is shown in Table 1.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Cluster</th>
<th>f</th>
<th>%</th>
<th>Average</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Dependent Variable</td>
<td>1</td>
<td>87</td>
<td>21.4</td>
<td>266.50</td>
<td>10.16</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>130</td>
<td>32.0</td>
<td>243.38</td>
<td>5.55</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>136</td>
<td>33.5</td>
<td>221.84</td>
<td>7.58</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>53</td>
<td>13.1</td>
<td>185.13</td>
<td>16.78</td>
</tr>
</tbody>
</table>

According to the results of the two-step cluster analysis, the average point of the social capital perception for teachers in the first group was 87 (21.4%) was 266.50, while their standard deviation was 10.16. The average points of the social capital for teachers in the second group 130 (%32.0) was 243.38, while their standard deviation was 5.55. The average points of the social capital for teachers in the third group 136 (33.5%) was 221.84, while their standard deviation was 7.58. Finally, the average points of the social capital perception for teachers in the last group 53 (13.1%) was 185.13, while their standard deviation was 16.78. When findings were analyzed according to those results, the first cluster refers to the “high” level of social capital perception for teachers, the second cluster refers to the “high-middle” level of social capital perception for teachers; the third cluster refers to the “moderately low” level of social capital perception for teachers; the last cluster refers to the “low” level of social capital perception for teachers. Thus, a dependent variable with four categories was obtained.

The logistic regression analysis is named after the structure of the dependent variable to which a logit transformation is applied. The dependent gradation to which the logistic regression analysis will be applied is at the scale level. Under such circumstances, an “Ordinal Logistic Regression Analysis” is applied (Çokluk, 2010; Ayhan, 2006). Since the perception of social capital was perceived within four categories in schools where a categorical dependent variable was available, the “Ordinal Logistic Regression Analysis” was preferred.

**Data Preparation:** To conduct the logistic regression analysis on data, an extreme value and missing value analysis was made before initiating the analysis. As a result of the missing value analysis, the missing values in the data set were excluded. As a result of extreme value analysis, [-3,+3], the data that was outside the range was determined and the extreme values were cleaned out. The model was tested over 548 data obtained as a result of the extreme value and missing value analysis.

In a logistic regression analysis, there must not be a high correlation among the independent variables (Tabachnick & Fidell, 1996). This study determined that the correlation value between the independent variables was r<0.90, and thus it did not include any multicollinearity.

In order to determine whether there was a problem of multicollinearity between predicting variables in the analysis, the increasing values of tolerance and variance were also examined. The fact that the VIF value was lower than 10 and the tolerance value was above 0.2 revealed that there was not
According to the values in the Table 2, the Tolerance values are greater than 0.02 when Tolerance and VIF values are analyzed. The VIF values are less than 0.10. In this manner, it was seen that related assumptions were verified.

Another assumption was parallelism in the Ordinal Logistic Regression Analysis. In order to verify the assumption of parallelism, the chi-square was used and the results are listed in Table 3.

The result of the assumption of parallelism obtained by the chi-square test was ($\chi^2 = 13.407$, $p = 0.495 > 0.05$). The value of significance must be above 0.05. Thus, it was observed that the $H_0$ hypothesis was accepted in the model and the assumption of parallelism of the model was verified. Generally, since all assumptions were verified, it was appropriate to conduct an ordinal logistic regression analysis.

Results

This section presents the obtained findings through the logistic regression analysis. The table of information for the model’s appropriateness emerged in the analysis, the model constructed without including the independent variables and -2 log likelihood (-2LL) value through which the model was established as including the independent variables are listed below.
When Table 5 is analyzed, the significant values of the model’s goodness of fit was ($\chi^2 = 1176.948, p = .601 > 0.05$) for Pearson’s, and ($\chi^2 = 907.386, p = 1.000 > 0.05$) for deviation. It is necessary for the significance value of the model’s goodness of fit to be greater than 0.05 (Şenel & Alatlı, 2014, p. 41). In this situation, one can conclude that the model conforms to the data and the $H_0$ hypothesis is accepted.

In our study, the model’s goodness of fit analyzed the R$^2$ value, also. The R$^2$ value evaluates the strength of the relationship between the dependent and independent variables. McFadden, Cox-Snell, and Nagelkerke are the most frequently used R$^2$ statistics. The data obtained as a result of the analysis is presented in Table 6.

As can be seen from Table 6, obtained R$^2$ values are Cox and Snell (0.333), Nagelkerke (0.358) and McFadden (0.153). When the Nagelke value is analyzed, it shows what percentage of the dependent variable is explained by the independent variables. Accordingly, 35.8% of the dependent variables in the model are explained by the independent variables.

The independent variables of this study are professional seniority, number of teachers, gender, specialty, marital status, and independent variables refer to changes in professional seniority, number of teachers, ethical leadership, gender, specialty, and marital status. Variables related to social relations, such as demographic factors that may lead to social capital in schools, can be considered to have an effect, as well. Different variables may have some effects on explaining the perception of social capital. Thus, the Wald test is used in order to determine which independent variable has influence on social capital. Obtaining the analysis of the logistic regression by means of the Wald statistic may conclude this analysis with more neutral and without deviation parameter findings (Çokluk, 2010). Depending upon the results of the Wald statistic, it is necessary for the Wald statistic to reach its odds proportion by getting its “e exponentiating,” in order to evaluate the model. The results obtained from those analyses are presented in Table 7.

### Table 5. Results of the Goodness of Fit Test

<table>
<thead>
<tr>
<th></th>
<th>$\chi^2$</th>
<th>sd</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson</td>
<td>1176.948</td>
<td>1190</td>
<td>.601</td>
</tr>
<tr>
<td>Deviation</td>
<td>907.386</td>
<td>1190</td>
<td>1.000</td>
</tr>
</tbody>
</table>

$H_0$ = The model represents the data.
$H_1$ = The model does not represent the data.

### Table 6. Results of R$^2$ Value

<table>
<thead>
<tr>
<th></th>
<th>Cox and Snell</th>
<th>Nagelkerke</th>
<th>McFadden</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.333</td>
<td>.358</td>
<td>.153</td>
</tr>
</tbody>
</table>

As can be seen from Table 6, obtained R$^2$ values are Cox and Snell (0.333), Nagelkerke (0.358) and McFadden (0.153). When the Nagelke value is analyzed, it shows what percentage of the dependent variable is explained by the independent variables. Accordingly, 35.8% of the dependent variables in the model are explained by the independent variables.

### Table 7. Expressing the Importance of the Model’s Parameter

<table>
<thead>
<tr>
<th>Variables</th>
<th>$\beta$</th>
<th>Wald</th>
<th>Odds proportion (e$^\beta$)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Dependent</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Variables</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Professional</td>
<td>-12.749</td>
<td>71.306</td>
<td>-</td>
<td>.000</td>
</tr>
<tr>
<td>Seniority</td>
<td>-.016</td>
<td>1.724</td>
<td>.984</td>
<td>.189</td>
</tr>
<tr>
<td>The Number of</td>
<td>-.105</td>
<td>124.692</td>
<td>0.900</td>
<td>.000</td>
</tr>
<tr>
<td>Teachers</td>
<td>.141</td>
<td>.536</td>
<td>1.151</td>
<td>.464</td>
</tr>
<tr>
<td>Ethical Leadership</td>
<td>0</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Gender (1)</td>
<td>.227</td>
<td>1.115</td>
<td>1.254</td>
<td>.291</td>
</tr>
<tr>
<td>Gender (2)</td>
<td>0</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Specialty (1)</td>
<td>-1.073</td>
<td>1.063</td>
<td>2.924</td>
<td>.302</td>
</tr>
<tr>
<td>Specialty (2)</td>
<td>0</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Medeni durum (1)</td>
<td>0</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Medeni durum(2)</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
When findings from this analysis are examined, the ethical leadership (p= 0.000) variable has some significance over the perception of social capital. In order to evaluate the parameter values of the ordinal logistic regression analysis, it is necessary to obtain the “e exponentiating” of those values and interpret them in terms of the reference categories. This interpretation must be conducted according to the reference category. Analyzing the parameter significance in this way is called “interpretation according to odds proportion” (Garson, 2012, p. 44).

According to Field (2009), in evaluating the odds proportion, the odds’ value being greater than 1 is related to the resulting increased proportion and the odds’ value being less than 1 is related to the resulting decrease proportion. A one unit of increase in the teacher’s perception of ethical leadership equals a -0.105 decrease in the possibility of a low level of their perception of social capital. When the odds proportion of the ethical leadership variable is analyzed, it was 0.900; that is, it is less than 1. A one unit of increase in the teacher’s low level perception of ethical leadership equals a 0.90-fold decrease in their perception level of social capital. That means, a decrease in the perception of ethical leadership in schools also diminishes their perception of social capital.

Discussion and Conclusion

In this study, data related to teachers’ perception of social capital in were are analyzed by means of logistic regression analysis. In order analyze the data, the teachers’ perception levels of social capital were divided to four groups as low, moderately low, moderately high, and high with clustering analysis in two steps. According to the results of the analysis, teachers’ perception of ethical leadership towards their managers has a significant effect on their perception of social capital in schools.

It has been determined that there is a significant relationship between ethical leadership and social capital (Çelik, 2014; Bennis, 1995). Studies in the literature show that there are also significant relationship between ethical leadership and variables of different organizational behaviors. Some of those studies include the following: social capital and organizational citizenship (Demirci & Arık, 2013; Kılıç, 2014); social webs and social capital (Kahraman, Gürbüz, & Toydemir, 2013); innovative behaviors and social capital (Bingöl & Turgut, 2013); social capital and regional development (2008); and social capital of schools and organizational image (Akan, Başar, & Şahin, 2014). Ethical leadership, as well as many organizational behavior variables related to social capital, significantly predicts social capital. It can be observed that there are important independent variables such as social capital leadership (Ekinci & Karakuş, 2011), and educational success (Dika & Singh, 2002), feelings of trust and commitment (Ekinci, 2008), which explain social capital perception in schools. Generally, it can be argued that the perception of social capital in schools is influenced by school managers’ attitudes, especially by some variables including ethical behaviors, reassuring implementations, and accountability. According to Baltaş (2015), social capital is one of the most attractive matters, like information capital. Social capital is the accumulation of asset values, such as trust between people, mutual understanding, and shared values and attitudes. When constructing relational webs between people and societies, social capital makes cooperation possible. Social capital, in a sense, is a bridge that fill the gaps between people.

Social capital, which is defined as a bridge to fill the gap between people may take the role of being an intermediary for teachers to lay a bridge between all school’s members. Tang, Leka, Hunt, and MacLennan (2014) describe “the nature of social relations in the working environment as social capital affected by factors such as leader and member interaction, trust, organizational support and communication competence”.

In this respect, since school principals have a leading role in school activites, their social attitudes can, depending on their choices, have a positive or negative effect on the perception of all school members. The ethical behavior of principals is expected and among the desired attitudes from them. Their ethical behaviors enrich social capital as social relations, trust, providing value, tolerance, and communication in schools. As a result of this study, it is also clearly seen that ethical attitudes significantly predict the social capital of schools. Accordingly, it is important for the schools to be sufficiently developed in the relationship between people in improving the schools’ social capital.
order to enhance principals’ ethical behaviors in schools, it is possible to create events such as organizing social events, holding meetings, organizing in-service trainings, creating programs that compare schools through visits in the region, and organizing tours to schools in different cities and abroad, which enrich social capital in schools.

Woolley et al. (2008) demonstrated the impact of school social capital on the academic and social achievement of students through teachers. This effect can be reflected on teachers by means of school administrators’ ethical attitudes and behaviors. Zheng et al. (2011) similarly stress that ethical leadership can strengthen employee relationships. Therefore, it can be argued that social capital has an important place to increase the quality of educational outcomes in schools. It is also clear that school managers’ ethical leadership behaviors play a significant role in increasing social capital. Gregory (1999) relates sustainability of social capital as a management reformation to ethical integrity. If ethical integration cannot be established among employees of organizations, social capital will be undermined. Social capital makes up trust, which in turn is an important principle in the context of ethics. As an important principle for ethics, trust ensures continuity of managerial performance. Ethical actions of managers lead to organizational compliance behavior by increasing employees’ social trust. In addition, Pastoriza et al. (2008) place social capital as a precursor in the source of ethical managerial behaviors. The formation of social capital in the organizational environment affects employees’ motivation and ethical development in a significant way. According to Hew and Brush (2007), rather than being the focus of mechanical and bureaucratic action, schools come to the fore with their informal aspects, and social capital is also an important element which ensures this. When it is thought that school principals are able to create strong social environments and relationships through ethical behaviors in their schools, school principals’ actions based on norms and values which strengthen their social relationships network as a whole, can create the strong school social.

To increase ethical behaviors of principals in schools; social activities, programs that make comparisons through visits to schools in the region, and trips to schools in different regions or even abroad can be organized to increase social capital. Social sensitivity training can be held to strengthen trust, loyalty, belonging and network of relationships as important elements of social capital. In particular, social ties can be strengthened with scenario-based instructional ethics and leadership practices for ethical-based leadership practices.
References


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