Levels of School Administrators Exhibiting Instructional Supervision Behaviors: Teachers' Perspectives

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Abstract	Article Info
Beginning with the 2015-2016 academic year in Turkey, school principals were given the responsibility of instructional supervisory authority. The purpose of this study is to reveal the level of instructional supervision exhibited by the school principals according to the perceptions of teachers and to examine these perceptions in terms of various variables. In this context, 1237 teachers working in primary, middle and high schools in Balıkesir and Bursa provinces were included in the study. In the study, a survey was used to reveal the current situation regarding instructional supervision exhibited by the school principals. The results of the study showed that the instructional supervision exhibited by the school principals occurred at a low frequency. Within the scope of the study, it is recommended that the current practice regarding the instructional supervision should be provided in a way that will recognize the teachers in the process of providing feedback to teaching and teachers and benefit from these teachers in this process.	

Introduction

Instructional leadership has become an important leadership approach, especially after the emergence of the effective schools theory in the 1980s in which school administrators prioritize the curriculum and the teaching process (Lashway, 2002; Lochmiller, 2016; Lochmiller, Huggins, & Acker-Hocevar, 2012; Serin & Buluç, 2012). This form of leadership has focused on improving teaching instead of managerial roles by fundamentally changing the traditional role and leadership understanding of the school principal (Çelik, 2015; Supovitz, Sirinides, & May, 2010). As a matter of fact, monitoring and evaluating the instruction activities carried out by the school administrators have been shown to have the potential for improving the teaching (Creemers & Scheerens, 1994; Hallinger & Heck, 1996; Heck, Larsen, & Marcoulides, 1990; Lochmiller, 2016). In addition, the school administrators, through the supervision and evaluation of the teacher, fulfill the responsibility of instructional leadership in this way as well as providing professional development of teachers (Stronge, 1993). Krug (1992), classified these instructional leadership behaviors, which should be demonstrated by school principals and focused on improving teaching, as the definition of the school mission, management of teaching and curriculum, supervision of instruction, monitoring of student development, and improvement of the teaching climate. This study will focus on the instructional supervision that is considered as one of the instructional leadership

behaviors (Hallinger & Heck, 1996; Krug, 1992; Leithwood & Louis, 2012; Wahlstrom & Louis, 2008).

Since the announcement in the literature that effective schools are usually managed by school principals with instructional-oriented leadership behaviors, recommendations have been made for school administrators to serve as instructional leaders (Edmonds, 1979). Subsequent studies have confirmed the importance of instructional leadership, and have sought to understand the behaviors required by effective instructional leadership (Leithwood & Louis, 2012). These studies indicate that there is an important gap in our understanding of instructional supervision as an instructional leadership practice (Leithwood & Louis, 2012; Lochmiller, 2016; Neumerski, 2013; Spillane & Diamond, 2007; Spillane, Halverson, & Diamond, 2004). Therefore, it is seen that there is a deficiency in international literature, especially in non-Western countries in terms of defining the instructional supervision behaviors of school principals and reflecting their practice. At this point, first, the current situation is thought to be quite meaningful to put forth because the transfer of instructional supervision to school principals in Turkey is a new development. Therefore, the purpose of this research is to present an idea about the instructional supervision to policymakers and educational administrators by revealing the level of instructional supervision behaviors exhibited by school administrators according to perceptions of primary school, middle school and high school teachers. Answers to the following questions were sought for the stated purpose.

1. What are the levels of instructional supervision behaviors exhibited by the school principals according to perceptions of primary, middle and high school teachers?
2. Do the levels of instructional supervision behaviors exhibited by the school principals differ significantly in terms of teachers' gender, teaching level, age and seniority according to perceptions of primary, middle and high school teachers?

Instructional Leadership

The concept of leadership, which has been put forward for the organizations to reach their goals more quickly and effectively, has become an intense study area by education researchers for almost half a century. Leadership, in general terms, means defining the realistic vision and mission for the future of the organization and the power to attract and pursue people to actualize that visions and mission (De Bevoise, 1984; Robbins & Judge, 2016). The leader is the person who can actualize all these. Studies have shown that leadership requires different approaches depending on the various situational factors and conditions within which the organization is involved (Hallinger & Murphy, 1985; Özdemir & Sezgin, 2002; Robbins & Judge, 2016). In this context, one of the organizations that needs a leader and different leadership approaches is educational organizations (Çelik, 2015). Because there are many different groups of people (teachers, students, parents, etc.) and situations that the principal deals with in the educational institutions. In the literature, although there are many models related to leadership, lately a model has become more prominent especially in educational organizations compared to others. This leadership model is the instructional

leadership that school administrators must have in every situation and condition.

Leadership in the context of school management was based on theories developed in business administration until the 1980s. During this period, trait theories, behavioral theories and contingency theories are frequently mentioned theories in the field of educational administration. Leader behavior in behavioral theory is designed in two dimensions, based on McGregor's X and Y Theory, as building structure and giving importance to relationship. Leadership behaviors of the school administrator were examined in terms of these two dimensions (Özden, 2013). In the 1980s, with the emergence of effective school movement, the school-specific instructional leadership approach emerged (Hallinger, 2005; Harris & Spillane, 2008; Spillane, 2006). One of the most important factors in the emergence of this concept was school administrators who were criticized for ignoring the quality of education and socio-economic needs of the society (Hess, 2003). Upon critiques in research conducted on effective schools, leadership has been found to have a critical place in the teaching process (Grissom & Loeb, 2011; Hallinger & Heck, 2010; Şişman, 2014). Based on this, an attempt was made to determine the roles of the school administrators who could create an effective school. In these determined teaching roles, school administrators have been an important element in increasing student achievement along with implementing the curriculum to adapt schools to changing structure and to achieve goals (Ergen, 2009; Glanz, 2005; Leithwood & Jantzi, 2008; Spillane & Zuberi, 2009).

Instructional leadership is defined as a set of behaviors that the principal exhibits, or enables others to exhibit, in order to increase student achievement in the school (De Bevoise, 1984). The most

important characteristic that distinguishes instructional leadership from other leadership models is its focus on the teaching-learning process (Gümüşeli, 1996). Along with this, another characteristic of instructional leadership is that the instructional supervision is under the responsibility of the school administrators. However, the process of instructional supervision here refers to helping the teacher in improving the teaching process rather than the process of controlling or judging teachers (Aydın, 2016). The cooperation, communication, coordination, and objective understanding of observation between the teacher and the school manager play a critical role in the success of this process (Leithwood & Jantzi, 2006; Leithwood, Seashore, Anderson, & Wahlstrom, 2004; Memduhoğlu & Zengin, 2012).

Instructional Supervision

One of the main goals of schools is to ensure student success under effective management. One of the sine qua non of good management is supervision (Başar, 1995; Henson, 2010). Supervision is the examination of the plans prepared in accordance with their aims, checking for errors and deficiencies, and correcting them for success (Demirkasımoğlu, 2011; Taymaz, 2019). The aim of the supervision that expresses the action aimed at both assessing and improving as understood from its definition is to ensure and maintain the effectiveness of the school (Aydın, 2016; Başaran, 2000). As one of the management processes, supervision is the responsibility of school administrators. Although the instructional supervision is mostly carried out in the form of informal observations in order not to disrupt teaching activities, it reaches a formal dimension through classroom supervision (Hallinger & Murphy, 1986). Thus, school administrators have the opportunity to evaluate the degree to which the defined and shared objectives are actualized as teachers are

practicing through classroom visits (Korkmaz, 2005). A successful school administrator is aware that assessing the development of teachers and students is essential for improvement. In addition, it is expected that he/she will have knowledge about the measurement and evaluation methods by which these assessments will be performed with (Serin & Buluç, 2012; Krug, 1992). Otherwise, he/she is aware that it is impossible to assess student development without evaluation.

In Western education systems (especially in the USA), instructional supervision has evolved from a centralized supervision and control model to humanistic and collective models for centuries (Başar, 2000; Marzano, Frontier, & Livingston, 2011). The supervision and control model, which took place between the 17th and 19th centuries, represented a hierarchical relationship between teachers and supervisors. In the age of scientific management in the first part of the 20th century, people who supervised teachers emphasized the importance of supervision by discovering the role of supervision activities on teaching-learning process. From the 1930s to the late 1950s, a new approach to supervision came to the forefront. The main priority of this approach was to increase the motivation of teachers by improving interpersonal relations and meeting personal needs (Glickman, Gordon, & Ross-Gordon, 2017). A new management approach at the end of the twentieth century envisaged a shift to instructional supervision focusing on the development of teachers rather than teachers' compatibility (Pajak, 1993). In addition, new terms such as instructional, developmental and moral leadership, vocational education, mentoring, and academic coaching have entered the leadership literature.

The instructional supervision has been thought to be mainly focused on teacher evaluation in terms of teacher perceptions (Schulman, Sullivan, & Glanz, 2008). However, Glanz and Behar-Horenstein (2000) emphasized that instructional supervision should have an identity that improves teaching processes rather than evaluative activities. At this point, instructional supervision and teacher evaluation are closely related to each other, but they do not pursue the same objective. Instructional supervision relies on school-based supervision of relevant staff (principals, administrators, teachers, and inspectors) in order to improve and support the professional development of teachers and the teaching process, whereas teacher evaluation is a systematic procedure used to review a teacher's performance in the classroom and to provide constructive feedback for the teacher's professional development. In other words, the instructional supervision aims to reveal the teacher's development while the teacher evaluation aims to reveal the performance of the teacher (Holland & Adams, 2002; Zepeda, 2017). However, evaluation is, inevitably, a process where the focus is on development (Akgün, 2001; Chao & Dugger, 1996; Schlechty, 2014; Schulman, Sullivan, & Glanz, 2008; Senge, 2006; Sergiovanni, 2014). Nolan (1997) stated that the supervision and evaluation of the teacher were different processes, but stated that these two actions could not be carried out effectively by a single person. For this reason, it was emphasized that the development of teaching activities should be primarily under the responsibility of the coaches in the informal form (Schulman, Sullivan, & Glanz, 2008).

In instructional leadership, the school administrator creates a development-oriented evaluation system by a rewarding student and teacher success (Akgün, 2001; Schlecty, 2014; Senge, 2006). School administrators sometimes experience this evaluation system through

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informal and sometimes formal supervision (Seifert & Vornberg, 2002). The supervisions are organized to show the intentions and aims they have. Following the supervision, deficiencies and faults of the issues that contribute to the achievement of the goal are revealed with the experienced evaluations (Başaran, 2000). The results are shared with teachers and are used to develop new strategies that will improve student performance (Çelik, 2015). The interactions that the administrator makes with the students in this process enable them to better see their individual abilities. This information that the administrator has helps her to establish richer and more meaningful dialogues with the students, families and teachers (Whitaker, 1997).

Historical Development of Educational Supervision in Turkey

Supervision in the Turkish education system started with the studies made after primary education became compulsory with the edict issued by II. Mahmut in 1824. With the official regulation made in 1838, a more control-oriented supervision institution was established (Erdem, 2009). Later, in 1846, two units named Primary Education Inspectorate and Secondary Education Inspectorate were established under the Ministry of Education (Aydın, 2014). In 1862, an important change was made and the inspectors who were assigned to inspect the high school and junior schools were assigned the duty of inspecting all schools (Taymaz, 2015). With the "Education Regulations" prepared by the Ministry of Education (MoNE) in 1869, new provisions were introduced on supervision services and it was emphasized that supervision was a management process (Şahin, Elçiçek, & Tösten, 2013). In 1875, the guiding principle was brought to the forefront in the inspection activities carried out with a regulation prepared; and it was foreseen that there should be

an inspection book in the institutions and the findings, observations and suggestions should be written here (Taymaz, 2015).

In 1923, the "Instruction for Education Inspectors" and the "Instruction on the Duties of Primary Education Inspectors" were published and thus, the duties and powers of the inspector, inspection principles and the establishment of the inspectorate were explained in detail. Upon the enactment of the Education Organization Law No. 789 in 1926 and the establishment of education security, a regulation on the rights, powers and duties of ministry inspectors was prepared. On the other hand, in the First Education Inspectors Guide published in 1929, the personal and professional characteristics required to be found in primary education inspectors were listed and it was stated that the inspector should be a good teacher first. However, since there is no concrete criterion for a good teacher, this understanding has been reflected in practice by assigning inspectors from teachers with a high level of seniority. In 1961, with the 23rd article of the law numbered 222 on January 5, 1961, "Primary education inspectors are appointed to carry out the guidance, inspection and investigation services of primary education institutions" provision has started to be implemented. With the regulation published in the Official Gazette dated October 27, 1990 and numbered 20678, another step was taken in inspection services, and it was stated that classroom supervision will be carried out during or separately from the general supervision process in Article 62 of the Ministry of National Education Inspection Board's Communiques dated 1993 and numbered 2570.

In Turkey, the classroom supervisions were done by the inspectors from the MoNE or the Provincial Directorate of National Education until the year of 2015. According to official data, the

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number of teachers working in the MoNE was 993,794 and the number of inspectors was 2,496 in 2015-2016 academic year (MEB, 2016). Given this situation, the small number of inspectors, the high number of workloads in the discipline, and the lack of long-term monitoring, observation and evaluation of teachers prevented the realization of instructional supervision. Therefore, this situation limited the control and supervision mechanisms of the Turkish education system, which has a strong central structure. This authority has been transferred to school principals under Article 54 of the Regulation on Teacher Assignment and Relocation of Ministry of National Education published in the Official Gazette dated April 17, 2015 and numbered 29329. It is seen that the form of "Classroom Supervision and Teacher Evaluation", which was published in this context and implemented by school principals, has two dimensions: classroom practices and occupational and personal qualifications. This necessitates school principals to have adequate knowledge and equipment not only in the field of management but also in the field of supervision. However, although the Turkish education system has recently transferred its supervisory authority from inspectors to school principals, it has neglected the dimensions of instructional supervision by school principals such as coaching, mentoring, and professional development. Therefore, the instructional supervision given to the principals reflects a centralized system, in which "control" aspects are privileged on "authorization" dimension. This case creates the impression that instructional supervision, as a factor supporting teaching in Turkey, is also a bureaucratic process. From this perspective, present instructional supervision in Turkey particularly, especially in the bureaucratic sense of direction is a little different from the concept in western countries. Together with all that, this delegation of authority can be considered as an important

step towards the acceptance of school leaders who are not legally accepted as a profession in Turkey.

Method

In this section, respectively, the research design, population and sample of the research, data collection tools, data analysis, and statistical techniques used in research are described.

Research Design

In this study, surveys were used to better understand the levels of instructional supervision behaviors of school principals working in primary, middle and high schools.

Research Context

This study was carried out in Bursa and Balıkesir cities located in the South Marmara region of Turkey during the academic year of 2015-2016. The South Marmara region is located in the west of Turkey. Some factors were effective in the selection of these two cities. Firstly, the researchers are familiar with these two cities, different school types (Science High School, Social Sciences High School, Anatolian Vocational High School, Vocational and Technical Anatolian High School, Religious Vocational Middle and High School, Middle School, Special Education Schools, and Primary School) and school principals (gender, seniority, age etc.). The second concerns the state of the cities. While Bursa is the fourth largest city in which most teachers serve, Balıkesir is the seventeenth largest city in Turkey. The number of teachers working within the Ministry of National Education in these two cities corresponds to approximately 5% of the total number of teachers (MEB, 2016). This ratio is remarkable considering that Bursa and Balıkesir are cities that receive

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intensive migration from different regions and cities of Turkey and have a cosmopolitan structure in a socio-cultural sense. Based on these points, the study was designed with a quantitative method in order to reach more generalizable results.

Population and Sample

The population of the study consists of 21,785 teachers working in primary, middle and high schools of the Ministry of National Education in the central districts of Balıkesir and Bursa in the 2015-2016 academic year. Research is carried out on the sample. It is assumed that 381 teachers can represent at the 0.5 significance level and 95% confidence level for sample size (Cohen, Manin, & Morrison, 2011). In this direction, 87 schools were identified primarily by simple random sampling in the central districts of Balıkesir and Bursa. Subsequently, 2,000 questionnaires were distributed to the schools. At the end of the data collection, 1,442 of the 2,000 (response rate is 72%) which were distributed to teachers who participated voluntarily in 87 schools were returned and 1,237 were analyzed because 205 of them had missing data (more than 10% unmarked items, multiple markings on the same items). Information about the research sample is presented in Table 1.

Table 1.

Number of Schools and Teachers in the Sample

Teaching level	Number of schools		Number of teachers		Number of participants	
	Balıkesir	Bursa	Balıkesir	Bursa	Balıkesir	Bursa
Primary	8	19	151	423	91	269
Middle	11	26	203	589	107	386
High	6	17	146	488	75	309
Total	25	62	500	1500	273	964
Grand Total	87		2000		1237	

Of the teachers who participated in the study, 770 (62.2%) were female and 467 (37.8%) were male. Of these teachers, 351 (28.4%) were working in primary school, 515 (41.6%) in middle school and 371 (30%) in high school. In terms of age, 222 (17.9%) of the teachers were in the 21-30 age range, 507 (41%) in the 31-40 age range, 378 (30.6%) in the 41-50 age range, and 130 (10.5%) were 51 or above.

Data Collection Tools

In this study, Instructional Supervisory Behavior of School Administrator Scale (ISBSAS), which was developed by İlğan (2014), was used to measure the levels of instructional supervision behaviors exhibited by the school principals according to perceptions of primary, middle, and high school teachers. İlğan (2014) stated that the scale is two-dimensional and consists of 23 items. The first dimension of the scale, the teaching and teacher development dimension includes expressions such as teachers' board meetings, follow-up of student success, involving teachers in management, teacher orientation, school climate based on trust, dealing with

teaching problems, lifelong learning, cooperation and professional development. The second dimension, called class visits and providing feedback, includes statements about the school principal's class visits, encouraging teachers to visit each other's classes, analyzing these visits, and feedback on performance.

The scale created for teachers contained statements such as: "Listens to teachers' teaching problems", "After the class visit, he/she talks with the teacher about her observation and provides feedback.", "Provides the necessary support for teachers who are new to the profession or school to adapt to the school", "Encourages teachers' participation in professional development activities", "Takes necessary steps to find a solution when the student has a learning deficiency/disability", "Takes into account teachers' opinions in making decisions regarding teaching and learning", "Promotes collaborative efforts among teachers", "Rewards successful teachers based on their concrete behavior)".

The reliability coefficients for the subscales of the ISBSAS were calculated as $\alpha = .97$ for teaching and teacher development, and as $\alpha = .93$ for classroom visits and giving feedback. As a result of the reliability analysis that İlğan (2014) applied to the scale, Cronbach's Alpha value was determined as $\alpha = .98$ for the whole scale. The results of Exploratory Factor Analysis (EFA) conducted by İlğan (2014) on the ISBSAS show that KMO value was .98 and Bartlett test value (.000) was significant. Within the scope of the research, 5-point Likert-type scale was used to determine the frequency of instructional supervision behaviors exhibited by the school principals and the options were chosen from the most negative to the most positive as "never, occasionally, sometimes, often, always" (1-5). Finally, for the analysis of the responses to the scale, the 4/5 formula that is

correspondent of the arithmetic means to the scale was used. According to this, arithmetic means were very low for 1,00-1,80, low for 1,81-2,60, medium for 2,61-3,40, high for 3,41-4,20, very high for 4,21-5.00.

Data Analysis

The SPSS 24 package program, which is used in data analysis in social sciences, was used for the analysis of the data. First, descriptive statistics such as mean, standard deviation, skewness, and kurtosis were calculated to determine demographic characteristics. Data analysis progressed in two steps. In the first step, the functions of the scale were examined with Confirmatory Factor Analysis (CFA). As a result of CFA, it was determined that ISBSAS consisted of two sub-dimensions and 23 items, as in İlğan (2014). In the second step, Multivariate Analysis of Variance (MANOVA) was applied to determine whether the instructional supervision behaviors exhibited by the school principals showed a significant difference according to the gender, teaching level, age and seniority variables of the teachers (Huck, 2011; Mertler & Vannatta, 2016). Post Hoc LSD test from the multivariate comparison tests was used to determine the source of the probable differences between the variables. As the significance level, $p<0.05$ was accepted in the interpretation of these results. Finally, the homogeneity of variance-covariance matrices, which is one of the basic conditions of multivariate analyses, and whether there is a linear relationship between the variables were examined according to Levene's test results. It was seen that the obtained results provide the necessary basic conditions.

Findings

Mean Scores According to Perceptions of Teachers

The levels of instructional supervision behaviors of the school principals according to perceptions of primary, middle and high school teachers are given in Table 2.

Table 2.

Mean Scores Related to ISBSAS

Sub-dimensions	Teaching level	N	$\overline{X}$	sd
Teaching and teacher development	Primary school	351	2.00	.95
	Middle school	515	2.38	1.00
	High school	371	1.98	.87
Classroom visits and giving feedback	Primary school	351	2.51	1.03
	Middle school	515	2.87	1.04
	High school	371	2.65	1.05
ISBSAS total	Primary school	351	2.17	.94
	Middle school	515	2.55	.97
	High school	371	2.21	.89

According to Table 2, the mean scores of the teachers related to teaching and teacher development were $\overline{X}$ = 2.00, sd = .95 in the primary school, $\overline{X}$ = 2.38, sd = 1.00 in the middle school, and $\overline{X}$ = 1.98, sd = .87 in the high school. The mean scores of the teachers related to classroom visits and giving feedback were $\overline{X}$ = 2.51, sd = 1.03 in the primary school, $\overline{X}$ = 2.87, sd = 1.04 in the middle school, and $\overline{X}$ = 2.65, sd = 1.05 in the high school. The findings show that primary school, middle school and high school teachers' perceptions of teaching and teacher development are at low level. Primary school teachers' perceptions of classroom visits and giving feedback were found to be

at the "low" level ($\bar{X}$ = 2.51, sd = 1.03), middle school teachers'
perceptions ($\bar{X}$ = 2.87, sd = 1.04) and high school teachers' perceptions
($\bar{X}$ = 2.65, sd = 1.05) were found to be at the "medium" level. Finally,
teachers working in primary school ($\bar{X}$ = 2.17, sd = .94), teachers
working in middle school ($\bar{X}$ = 2.55, sd = .97), and teachers working in
high school ($\bar{X}$ = 2.21, sd = .89) had a "low" level of ISBSAS
perception.

Factor Analysis

In this study, CFA was conducted to verify that the ISBSAS
consisted of two sub-dimensions and 23 items as in İlğan (2014). As
the results of CFA, emerging factor structures and fit indices and
values regarding the model are shown in Table 3.

Table 3.

Fit Indices and Values of CFA

| Fit indices		Values	Decision
χ^2		778.44	
sd		203	
χ^2/sd	$3 \leq \chi^2$/sd<5= Acceptable	3.8	Accepted
GFI	≤.95= Perfect	0.95	Accepted
AGFI	≤.90= Perfect	0.93	Accepted
CFI	≤.95= Perfect	1.00	Accepted
NFI	≤.95= Perfect	0.99	Accepted
NNFI	≤.95= Perfect	0.99	Accepted
SRMR	≤.05= Perfect	0.024	Accepted
RMR	≤.05= Perfect	0.036	Accepted
RMSEA	≤.05= Perfect	0.048	Accepted
RFI	≤.95= Perfect	0.99	Accepted
IFI	≤.95= Perfect	1.00	Accepted

Source: Schumacker & Lomax, 2010, p. 76.

When we looked at the values that are formed as a result of CFA in Table 3, it was seen that all the obtained values had a good fit for analysis. In addition, as a result of the CFA, the scale was determined to consist of two sub-dimensions and 23 items, as adapted by İlğan (2014). Items numbered as 1, 2, 8, 9, 10, 11, 15, 16, 17, 18, 19, 20, 21, 22, and 23 were included in the dimension of "teaching and teacher development", while items numbered as 3, 4, 5, 6, 7, 12, 13, and 14 are included in the dimension of "classroom visits and

giving feedback". The path diagram describing the relationship between the factors and items of the two-dimensional model of ISBSAS is shown in Figure 1.

Figure 1.

The Path Diagram of the ISBSAS.
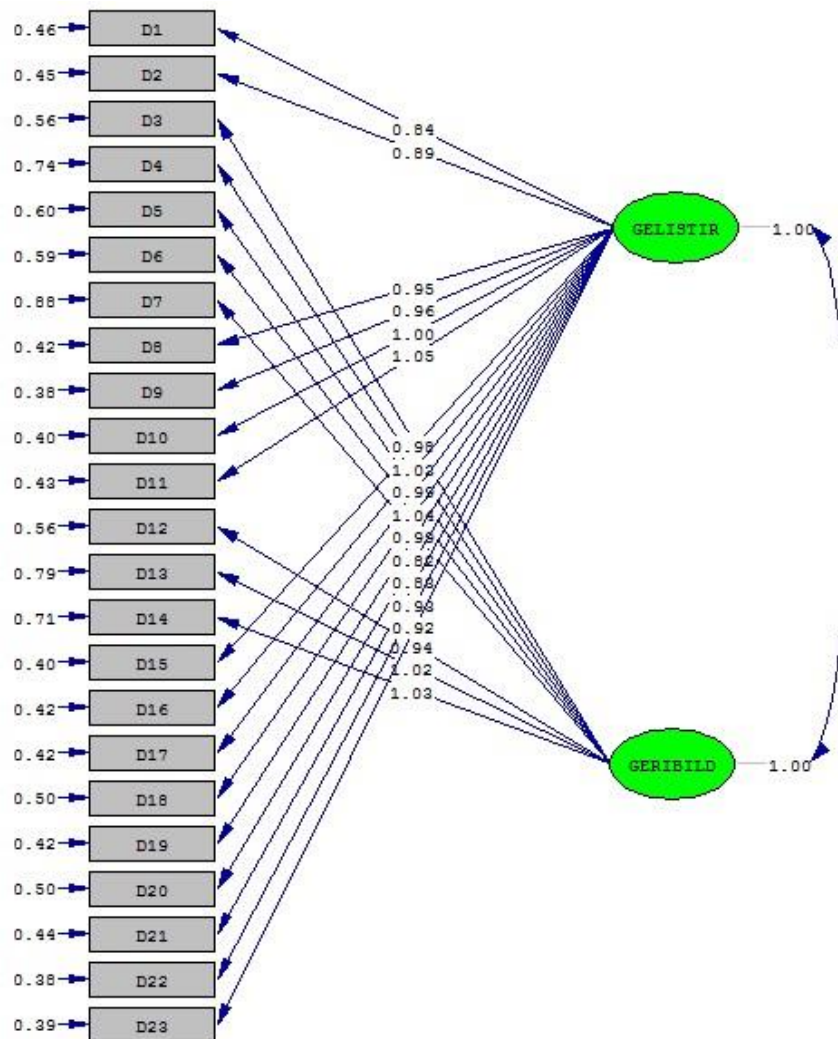
Chi-Square=778.44, df=203, P-value=0.00000, RMSEA=0.048

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Multivariate Analysis of Variance

After factor analysis, "teaching and teacher development" and "classroom visits and giving feedback" dimensions of the ISBSAS were determined as dependent variables. Then, MANOVA was conducted to determine whether the instructional leadership behaviors exhibited by the school principals in the classroom supervision showed a significant difference according to the independent variables of teachers' gender, teaching level, age and seniority. The output of MANOVA includes analysis of homogeneity of variances. Therefore, comments begin with the results of Box's M analysis (Mertler & Vannatta, 2016). Box's M values obtained as a result of the analysis are shown in Table 4.

Table 4.

Box's M Multivariate Analysis

Box's Test of Equality of Covariance Matrices[a]	
Box's *M*	184.782
F	.989
df1	168
df2	13847.165
Sig.	.526

Note[a]: Tests the hypothesis that the observed covariance matrices of the independent variables are equal among the groups.

According to the results of Box's M variance equality analysis in Table 4 (Box's M = 184, 13847.165; F = .989, p = .526), equality of covariance was not accepted. Due to the fact that there was no significant difference in Box's M analysis for the equality of covariance matrices, Wilks' Lambda test was preferred.

The results of MANOVA to determine whether the instructional supervision behaviors of the school principals show a significant difference in terms of the independent variables of teachers' gender, teaching level, age, and seniority are shown in Table 5.

Table 5.

Multivariate Analysis of Variance of Instructional Supervision Scale

Effect		Value	F	Hypothesis df	Error df	p	η^2 (eta)
Intercept	Wilks' Lambda	.601	386.256b	2.000	1163.000	.000	.399
Gender	Wilks' Lambda	.997	1.1953b	2.000	1163.000	.142	.003
Teaching Level	Wilks' Lambda	.979	6.127b	4.000	2326.000	.000	.010
Age	Wilks' Lambda	.988	2.326b	6.000	2326.000	.030	.006
Seniority	Wilks' Lambda	.986	2.077 b	8.000	2326.000	.035	.007

*$p < .05$

The results of multivariate analysis of variance regarding instructional supervision behaviors of the school principals revealed that the dependent variables of "teaching and teacher development" and "classroom visits and giving feedback" were effective on the independent variables. Accordingly, the teaching level [Wilks' Lambda = 0.979, F (4, 2326) = 6.127, p = 0.000, partial η2 = 0.010], the age [Wilks' Lambda = 0.988, F (6, 2326) = 2.326, p = 0.030, partial η2 = 0.006], and the seniority [Wilks' Lambda = 0.986, F (8, 2326) = 2.077, p = 0.035, partial η2 = 0.007] affect the teachers' perceptions of instructional supervision behavior of the school principals, while the independent variable gender [Wilks' Lambda = 0.997, F (2, 1163) = 1.953, p = 0.142, partial η2 = 0.003] does not have any effect on the instructional supervision behavior of school principals.

Post Hoc LSD, which is one of the multivariate comparison tests, was applied to determine the source of the probable differences between the variables. In addition, the homogeneity of variance-covariance matrices as one of the basic requirements of multivariate analyses and the linear relationship between variables were evaluated according to Levene's test results. The obtained results are shown in Table 6.

Table 6.

Test of Normality of Instructional Supervision Scale

Levene's Test of Equality of Error Variances[a]

	F	*df1*	*df2*	**Sig.**
Teaching and teacher development	1.251	72	1164	.082
Classroom visits and giving feedback	1.248	72	1164	.083

In Table 6, the results obtained from the Levene's test were found to provide the basic requirement for the analysis of variance.

Univariate Analysis of Variance

Univariate Analysis of Variance was conducted as a follow-up test. The results of the Univariate ANOVA related to "teaching and teacher development" and "classroom visits and giving feedback" sub-dimensions are shown in Table 7.

Table 7.

*ANOVA Results Related to Teaching and Teacher Development and
Classroom Visits and Giving Feedback*

	Dependent Variables	*F*	*p*	*sd*	η^2
Teaching level	Teaching and teacher development	8.508	.000	2	.014
	Classroom visits and giving feedback	8.409	.000	2	.014
Age	Teaching and teacher development	2.761	.041	3	.007
	Classroom visits and giving feedback	2.924	.033	3	.007
Seniority	Teaching and teacher development	1.957	.099	4	.007
	Classroom visits and giving feedback	2.897	.021	4	.010

*p<.05

When Table 7 is examined, it is seen that the teaching level variable had an effect on "teaching and teacher development" [F (2, 1164) = 8.508, p = 0.000, partial η2 = 0.014] and "classroom visits and giving feedback" [F (2, 1164) = 8.409, p = 0.000, partial η2 = 0.014] sub-dimensions. Also, the age variable of the teachers had an effect on "teaching and teacher development" [F (3, 1164) = 8.283, p = 0.041, partial η2 = 0.007] and "classroom visits and giving feedback" [F (3, 1164) = 8.773, p = 0.033, partial η2 = 0.007] sub-dimensions. Finally, it has been concluded that the seniority variable had an effect on the sub-dimension of "classroom visits and giving feedback" [F (4, 1164) = 8.409, p = 0.000, partial η2 = 0.014].

Multivariate Comparison Test

One-Way Analysis of Variance (One-Way ANOVA) related to the teaching level, age, and seniority variables between which a significant difference was found according to univariate ANOVA was conducted as a follow-up test. One-way ANOVA results are shown in Table 8, Table 9, and Table 10, respectively.

Table 8.

Post Hoc LSD Test for Teaching Level Variable

Dependent Variable	(I) Seniority	(J) Seniority	Mean difference (I-J)	Std. Error	Sig.	95% Confidence Interval for Differenced	
						Lower bound	Upper bound
Teaching and teacher development	Middle school	Primary School	.078*,b,c	.026	.002	.028	.128
		High School	.100*,b,c	.026	.000	.049	.152
Classroom visits and giving feedback	Middle school	Primary School	.079*,b,c	.025	.002	.030	.129
		High School	.066*,b,c	.026	.010	.016	.117

*$p<.05$

When Table 8 is examined, it is seen that teachers working in middle school have higher perceptions of instructional supervision behaviors compared to the teachers working in both primary and high school in terms of the teaching level in the sub-dimensions of "teaching and teacher development" and "classroom visits and giving feedback".

Tablo 9.

Post Hoc LSD Test for Age Variable

Dependent Variable	(I) Seniority	(J) Seniority	Mean difference (I-J)	Std. Error	Sig.	95% Confidence Interval for Differenced	
						Lower Bound	Upper Bound
Teaching and teacher development	Age of 21-30	Age of 31-40	.095*,b,c	.028	.001	.041	.149
		Age of 41-50	.098*,b,c	.031	.002	.038	.158
		Age of 51 and above	.044b,c	.041	.283	-.036	.124
Classroom visits and giving feedback	Age of 21-30	Age of 31-40	.072*,b,c	.027	.008	.019	.125
		Age of 41-50	.104*,b,c	.030	.001	.045	.164
		Age of 51 and above	.049b,c	.040	.220	-.029	.128

*$p<0.05$

When Table 9 is examined, it is found that there is a significant difference between the age groups of teachers and their instructional supervision behavior perceptions on the sub-dimensions of "teaching and teacher development" and "classroom visits and giving feedback". Based on the findings, in both "teaching and teacher development" and "classroom visits and giving feedback" sub-dimensions, teachers who are between the ages of 21-30 think that instructional supervision behaviors of the school principals are more frequent compared to teachers between the ages of 31-40 and 41-50.

Table 10.

Post Hoc LSD Test for Seniority Variable

Pairwise Comparisons

Dependent Variable	(I) Seniority	(J) Seniority	Mean difference (I-J)	Std. Error	Sig.	95% Confidence Interval for Differenced	
						Lower Bound	Upper Bound
Teaching and teacher development	1-5 years	6-10 years	-.075*,b,c	.035	.032	-.144	-.006
		16-20 years	-.064*,b,c	.032	.044	-.126	-.002
Classroom visits and giving feedback	1-5 years	6-10 years	-.076*,b,c	.034	.026	-.144	-.009
		11-15 years	-.062*,b,c	.031	.049	-.123	.000
		16-20 years	-.063*,b,c	.031	.042	-.124	-.002
		21 years and above	-.082*,b,c	.031	.008	-.143	-.022

*$p<0.05$

When Table 10 is examined, it is found that there is a significant difference between the seniority groups and teachers' perceptions of instructional supervision behavior. In this direction, in "teaching and teacher development" sub-dimension, teachers whose seniority level was 6-10 years and 16-20 years think that instructional supervision behaviors of the school principals are more frequent compared to teachers whose seniority level was 1-5 years; and in "classroom visits and giving feedback" sub-dimension, teachers whose seniority level was 6-10 years, 11-15 years, 16-20 years, and 21 years and above think that instructional supervision behaviors of the school principals are more frequent compared to teachers whose seniority level was 1-5 years.

Discussion

In this study, the instructional supervision that began to be carried out by school principals with the supervision practice that changed in 2015 in Turkey was discussed. The findings of the study showed that the perceptions of primary school, middle school, and high school teachers regarding teaching and teacher development were at the "low" level. Perceptions regarding classroom visits and providing feedback were at the "low" level for primary and high school teachers and "medium" for middle school teachers. Finally, the primary, middle, and high school teachers' perceptions of ISBSAS were at the "low" level. The reason why the school principals' instructional supervision behaviors were at the low level could be due to the fact that, as Burch and Spillane (2003) emphasized, the school administrators did not have enough knowledge about the instructional supervision behaviors.

In the research, a significant difference was found in favor of middle school teachers in terms of teaching levels in the sub-dimensions of "teaching and teacher development" and "classroom visits and giving feedback" among primary, middle and high school teachers. In other words, middle school teachers think that the instructional supervision behaviors of the school principals in the schools they work occur more frequently compared to primary and high school teachers. When the results are evaluated, it can be said that this difference in the opinions of primary and middle school teachers is mainly due to the fact that primary school teachers are working in a single classroom. However, middle school teachers can teach many classes both in different class levels and classrooms. Therefore, the school principal may have wanted to supervise the teacher at different class levels and classrooms. This may have led

middle school teachers to think that supervision activities occur more often directly or indirectly. The difference in the views of middle school and high school teachers may have been due to the difference between the levels of parents' participation in the education in middle and high school. As of the age group, the families of middle school students who need more help than high school students are more interested in education than the families of high school students (Erdener, 2014). This may have led to more frequent supervision of school principals in middle school. Along with this, the fact that high school principals spent more time in managerial work can be seen as one of the other factors in the emergence of this difference.

There was a significant difference between the age groups of teachers and their perceptions of instructional supervision behaviors on the "teaching and teacher development" sub-dimension. Based on the findings, teachers who are between the ages of 21-30 think that the instructional supervision behaviors of the school principals are more frequent in the "teaching and teacher development" sub-dimension compared to the teachers between the ages of 31-40 and 41-50. The reason of this finding can be explained by the fact that teacher development progresses in line with the experience. Teachers between the ages of 21-30 are in the early stages of their profession and are in the process of recognizing and defining many of their deficiencies. Under the influence of this situation, teachers between the ages of 21-30, aware or unaware, may have been more sensitive while evaluating the instructional supervision behaviors of the school principals.

Another finding of the study is that there is a significant difference between the seniority groups and the perceptions of instructional supervision behaviors of the teachers working in

primary, middle, and high schools. In this direction, in "teaching and teacher development" sub-dimension, teachers whose seniority level was 6-10 years and 16-20 years think that instructional supervision behaviors of the school principals are more frequent compared to teachers whose seniority level was 1-5 years; and in "classroom visits and giving feedback" sub-dimension, teachers whose seniority level was 6-10 years, 11-15 years, 16-20 years, and 21 years and above think that instructional supervision behaviors of school principals are more frequent compared to teachers whose seniority level was 1-5 years. When the differences between the seniority groups are examined, it is seen that the teachers whose seniority level was 1-5 years think that instructional supervision behaviors of school principals in terms of both sub-dimensions were at the low level compared to the other seniority groups. This situation can be explained by the expectations of teachers, who are in the first years of their profession, from school principals. Teachers need more support in terms of professional development in the early years of their profession (Korkmaz, Saban, & Akbaşlı, 2004; Moir, 1999; Wideen, Mayer-Smith, & Moon, 1998). However, school principals dealing with more administrative work within the existing bureaucracy in Turkey may not meet the expectations of teachers in the early years of their occupation in terms of professional development. As a matter of fact, the years in which teachers experience the most difficulties in their professional careers are known as the first years of their profession (Feiman-Nemser, 2003; Hammond, 2005). Therefore, teachers with seniority between 1-5 years may have perceived the instructional supervision behaviors of the principal at a lower level.

There was no significant difference in the views of the primary school, middle school, and high school teachers on instructional supervision in terms of gender variable in the "teaching and teacher

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development" and "classroom visits and giving feedback" sub-dimensions. In other words, the perceptions regarding the instructional supervision behaviors of the school principals do not differ in terms of the gender of teachers. It can be argued that the reason for this is that the instructional supervision behaviors exhibited by the school principals vary according to individual assessments.

Conclusion and Implications

Several studies in the literature have shown that modern instructional supervision practices have the potential to improve teaching (Blasé & Blase, 1999; Dufour, 2004; Glanz, Shulman, & Sullivan, 2006; Glatthorn, 1997; Hult & Segerholm, 2012; Lochmiller, 2016; Pansiri, 2008; Rous, 2004; Sergiovanni, 2014; Sergiovanni & Starratt, 2014; Sullivan & Glanz, 2013; Tyagi, 2010; Zepeda, 2011). However, the bond established to ensure the direct student development by modern supervision is weaker (Glanz, Shulman, & Sullivan, 2007). However, most researchers and practitioners believe that instructional supervision can improve students' learning through the development of teaching. For these reasons, the instructional supervision activities actualized by school principals are very important for development of teaching and students. As a matter of fact, some researchers show that the time spent by the school administrators for the instructional supervision is positively related to the students' achievement (Grissom & Loeb, 2011; Grissom, Loeb, & Master, 2013). This study aimed to determine the level of the education supervision authority recently delegated to school principals in Turkey depending on various personal variables. As a result, the ISBSAS perception of teachers in Turkey was found to be

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at the "low" level in elementary school, middle school and high school. In addition, while there were significant differences in the variables of education level, age and seniority in the study, no difference was found on the gender variable. According to the results obtained, the research broadens the base of information regarding the supervision behavior of school principals and contributes to raising the awareness about the supervision behavior of school principals.

The results of this study have important effects on leadership practices related to the supervision behavior of school principals in Turkey. The existing bureaucratic and managerial roles attributed to the school principal in Turkey reduces the possibility of school principals entering the practice of instructional supervision. At this point, this study set out in Turkey shows that countries with a central education structure as Turkey may share a similar scenario. On the other hand, as is true in many developing countries, there is still less information about whether the school principals' instructional supervisory authority in Turkey will result in a difference in the students' learning outcomes and to what extent this difference will be. Therefore, additional research is needed in developing contexts regarding the link between instructional supervision behaviors of school principals and improving teaching.

In recent years, the importance of equipping school administrators with the skills they need to develop teachers' capacities to improve teaching has been emphasized (Lochmiller, 2016; Lochmiller, Huggins, & Acker-Hocevar, 2012). However, determining that the instructional supervision behaviors of the school principals are not at the desired level within the scope of this research may point to a practice that needs to be changed in a practical sense. In fact, both school administrators and teachers may benefit from the

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change in current policies that will recognize other teachers especially in the process of providing feedback for teaching and teachers and benefit from these teachers in this process. As a matter of fact, this is consistent with previous research that emphasized the potential advantages of distributing leadership responsibilities to more than one person or the complete restructuring of leadership roles (Burch & Spillane, 2003; Lochmiller, 2016; Spillane, Halverson, & Diamond, 2004). Furthermore, this approach accepts the limits of a single administrator's capacity to equally supervise all content areas (branches). Along with this, the retraction or revenge behavior of the teachers will be minimized against the malicious supervisions that the school administrator may exhibit (Demirkasımoğlu, 2018). Finally, knowing the instructional supervision behaviors exhibited by the school principals and the level of these behaviors can be a criterion for revealing the actualization level of the instructional supervision and this criterion can be very important for administrator selection and appointment. This approach to be adopted can provide a positive contribution to the accountability system of the relevant institutions as it is frequently emphasized in the literature (Datnow, Park, & Wohlstetter, 2007; Lochmiller, 2016; Marsh, Pane, & Hamilton, 2006; Snipes, Doolittle, & Herlihy, 2002).

Limitations

There are some limitations about this research. First, the ISBSAS used in this research cannot strictly limit instructional supervision behaviors of principal. It is also thought that the data obtained from the public schools located in Balıkesir and Bursa provinces of the South Marmara Region cannot reveal the level of instructional supervision behaviors of the school principals in the whole country in

a precise manner. Therefore, the inferences based on the research findings are limited to the sample rather than the whole. Subsequent research may be carried out in private schools that have recently become more widespread in the world or a comparison between the public and private schools can be made. Again, school administrators can be included in this research. This cross-sectional study cannot reveal the level of instructional supervision behaviors of the school principals for a long period. For this reason, future researches can address the instructional supervision behaviors of the school principals in a longitudinal manner and also their relation with motivation and organizational commitment that are considered to be related with the instructional supervision.

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